This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

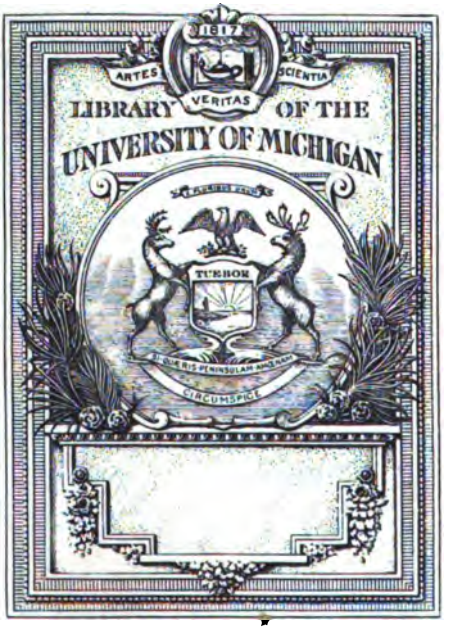
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`


1817
ARTES
SCIENTIA
VERITAS
LIBRARY OF THE
UNIVERSITY OF MICHIGAN
TUEBOR
CIRCUMSPICE

2 vols.
25.-

THE

COMPLETE STEWARD:

OR,

The Duty of a STEWARD to his LORD.

CONTAINING

Several NEW METHODS for the Improvement of his LORD'S Eſtate,

AND

Shewing the indirect Practices of STEWARDS, tending to leſſen any Eſtate.

Alſo a NEW SYSTEM of

AGRICULTURE and HUSBANDRY,

WHEREIN ARE LAID DOWN

General Rules and Directions for the Management and Improvement of FARMS.

WITH

TABLES for the Meaſurement of Timber, Intereſt of Money; and the Value of ancient and modern Coin compared.

TOGETHER WITH

Several LAW PRECEDENTS relating to the Duty and Office of a STEWARD.

By JOHN MORDANT.

In TWO VOLUMES.

VOL. I.

LONDON:
Printed for W. SANDBY, in Fleet-Street.
MDCCLXI.

493
.M83
V.1

6544.16-129

TO THE HONOURABLE

Sir WILLIAM WAKE,

Of RIDDLESWORTH-HALL,

In the County of Norfolk, Baronet.

SIR,

BEING ſenſible how much the Succeſs of any Performance depends upon the Name and Character of the Author, I ſhould not have ventured to have publiſhed the following Treatiſe, but under the Favour of your Patronage and Protection. The Obſcurity in which I have lived in the Country, would in all Probability have prejudiced the World againſt me, and not ſuffered them to have weighed impartially, what little Share of Merit might belong to me; but ſince you have been ſo kind as to permit me thus publickly to acknowledge you as my Friend and Patron, I flatter myſelf that I ſhall feel the Effects of ſo much Goodneſs and Condeſcenſion towards me: At leaſt that the World will be leſs inclinable to cenſure me for the Meanneſs of my Performance, but rather give me the Liberty of ſaying thus much in its Behalf, that however plain and ſimple its

Dreſs, it has coſt me great Pains and Trouble to complete it: if therefore it meets with a favourable Reception, I ſhall in great Meaſure attribute it to the Honour I have in being acquainted with a Perſon of your ſuperior Station in Life, whoſe many perſonal good Qualities, added to the Dignity and Antiquity of your Family, will ever give a Sanction and Credit to thoſe whom you ſhall pleaſe to countenance and favour. I could with Pleaſure enlarge on the Particulars which render your Character ſo truly great and amiable, but being fearful of offending your known Modeſty, I only dare add my ſincere Wiſhes of long Life and Proſperity to you and the hopeful Branches of your riſing Family.

I am,

Honoured SIR,

With the higheſt Reſpect,

Your moſt dutiful and obliged

Humble Servant,

John Mordant.

THE

PREFACE.

AMONGST the great variety and multiplicity of books that have been publiſhed within theſe few years, I don't remember to have ſeen any thing come forth relating to the office and duty of a Steward, or at leaſt nothing of conſequence, except ſome detached pieces that have dropt ſome few hints, but have given no general ſketch of the character of a Steward; and as it is an office that reſpects ſo many different branches of buſineſs, I thought I could not better beſtow what leiſure hours I have to ſpare from a more laborious taſk, than in giving what little aſſiſtance I am capable of towards explaining the nature of ſuch employment, and pointing out what qualifications are neceſſary in thoſe that undertake it. It is a taſk of greater difficulty than is generally imagined; for it is requiſite in a Steward, that he has not only *honeſty* and *integrity* to recommend him, but likewiſe *judgment* and *experience*, founded upon ſome ſkill and knowledge in the *law* (*eſpecially pariſh-law*) in *agriculture*, in *trade*, *arithmetic*, the *mathematics*, *mechanics*, &c. Elſe how will he be able to prevent any diſhoneſty in workmen, the many little low tricks which are too often practiſed by *maſons*, *carpenters*, &c. If he does not underſtand

derſtand how to meaſure their ſeveral works, or what prices they ought to demand, according to the nature and quality of their different works, how eaſily will they impoſe upon him, and his *Lord* ſuffer through his *ignorance* and *unſkilfulneſs*.

Again, if he does not underſtand meaſuring of land, and the *nature* and *qualities* of different ſorts of *land*, how will he be able to form a judgment of the true value of each *farm*, to let them to advantage, or to know when they are underlet.

It is eaſy therefore to conceive what *loſſes* and *misfortunes* the *nobility* and *gentry* muſt ſuſtain through unſkilful management in all theſe caſes.

Mr. Laurence has indeed in ſome meaſure treated of this ſubject before me, and a very able perſon he was to have handled it in a full and general way, and to advantage; but it muſt be allowed, that his *obſervations* and *reflections* are too few and conciſe, to give a general ſatisfaction in every *article*, not comprehending a fourth part of the duty of a Steward; which deficiency in Mr. Laurence will be looked upon, I hope, as a ſufficient apology for this attempt of mine, when I acquaint the reader with the whole plan and deſign of this treatiſe.

In the firſt place, I have inſerted alphabetically (*as being a more eaſy and uſeful method*) every branch of agriculture, according to the beſt and neweſt method now in uſe, and ſuch forms, covenants, precedents and reflections upon all ſuch covenants, as more immediately concern the letting and ſetting of farms, *&c.* I have alſo inſerted ſome uſeful and neceſſary *bills*, *draughts*, *law precedents*, &c. wherein the Steward may ſerve himſelf and his *Lord*'s dependants, eſpecially in thoſe places where an *attorney* is not near at hand; for ſometimes doing a thing upon the *ſpot* is of infinite ſervice. I have alſo inſerted all ſuch uſeful tables as may be found

found neceſſary for the information of a Steward, in all branches of buſineſs he can be concerned in, or which can poſſibly fall in his way.

Secondly, The tables I here preſent him with, are moſt of them founded on new but ſolid principles, and much more uſeful than any I have yet ſeen; and though ſince I have calculated mine of timber meaſure according to the common way, I have met with ſomewhat the ſame in Mr. Hume's New Eſſay on Solids, yet his are not calculated to the moſt extenſive and largeſt pieces, and in length to every quarter of a foot as mine are, for the largeſt ſort of *ſticks* caſt by Mr. Hume's tables, muſt be twice or thrice entered; but in mine, you may take out to even feet in length, and at once, and by one ſmall addition to every fourth part of a foot.

I have alſo calculated and inſerted a table of timber meaſure according to a cylindar, or the true way, ſo that both (*as occaſion requires*) may be compared. I have alſo calculated and inſerted tables for reducing unequal ſided timber to a true ſquare.

As to thoſe of ſuperficial meaſure, they muſt be allowed to be not only the largeſt, but the moſt uſeful extant. And to oblige the more curious, I have calculated tables of timber meaſure the common way, and alſo of a cylindar, in order to ſhew how much in length of any piece will make a ſolid foot. There is alſo one of ſuperficial meaſure for the ſame purpoſe. As to all the other tables, I have inſerted their different names and titles, ſo that I need not in this place enlarge upon their utility.

I have alſo drawn out different ſchemes, whereby a Steward may be enabled to keep by him, the true and exact nature and condition of every *eſtate* and *farm* committed to his *truſt*.

I have alſo inſerted a very eaſy and familiar method of accounts, although not done by *double entry*, yet they will appear very clear and perſpicuous to the inſpector, who perhaps may not underſtand the *Italian* manner of book-keeping, and which I did not chuſe to inſert, becauſe being intricate, might rather perplex than inſtruct him.

I have alſo inſerted the prices of moſt artificers work at the common rates, as they are eſtimated in London, and in the *midland* parts of the *kingdom*, with the common prices of different work in *huſbandry*, &c.

In ſhort, I have uſed my beſt endeavours to make the following work as uſeful and inſtructive as I could, hoping on that account, that the candid reader will be the more inclined to overlook whatever inacurracies of ſtyle or expreſſion may have dropped from the author's pen, as his principal deſign and intention through the whole, has been not ſo much to amuſe and entertain perſons of a more delicate taſte, as to promote *truth* and *honeſty*, two very valuable things, that will in all times, it is to be hoped, meet with a proper reſpect and encouragement.

Courtenhall, (near Northampton)
January 1, 1760.

N. B. *The author has purpoſely omitted all ſuch rules and tables as reſpect the renewing church, college, &c. leaſes; thoſe being done by a late right reverend prelate of our church, to which the reader is referred.*

In the collection of pigeons, one ſort has been omitted, which is the Powter.

The Steward ſhould always keep a good quantity of crab-tree plants by him, ready to be planted in ſuch gaps as require them, they being haſty of growth, ſoon fill a gap, and conſequently prevent the quick-hedges from being cut and mangled, not only in a proper, but alſo in an improper ſeaſon.

THE

MERCANTILE LIBRARY PHILA.

THE COMPLETE STEWARD.

A.

ALDER TREE,

LOVES and delights in watery and boggy places the beſt of all others. It is propagated or raiſed of truncheons as well as ſeeds; but the beſt way is by ſuckers, which it puts forth plentifully, or by roots of eight or ten inches round, and about two feet long, one end being plunged in mud. Place them at four or five feet diſtance, and when they have ſtruck root, and of one year's ſhoot, cut them to the ſtumps, which will cauſe them to ſpring in clumps, and ſhoot out into uſeful poles. If you plant ſmall ſets, do not cut them till they are of a competent ſize, and that in a proper ſeaſon, which, for all aquatic woods, ought not to be till the winter is pretty well advanced, in regard of

their pithy ſubſtance; ſuch as you make uſe of in that ſeaſon, ought to be well grown, that ſo the ſucceſſive ſhoot receive no prejudice. In the Iſle of Jerſey, they plant them by taking truncheons of two or three feet long at the beginning of winter; they bind them in faggots, and put the ends of them in water, where they ſtand till towards the ſpring, by which time they will have contracted a ſwelling ſpire, or tuberoſity about the part, which being planted, never fails of growing.

The ſhade of this tree ſpoils not the graſs growing under it; but rather proves a nouriſhment to it, and being ſet and properly plaſhed, proves an excellent defence to the banks of ponds, rivers, *&c.* They are chiefly reckoned of two ſpecies or kinds; the common ſort which only affects moiſt and marſhy ground, and the blacker which thrives better on dryer lands. Occaſionally, old over-grown Alders are much ſought for, as piles for ſuch buildings as are built upon marſhy ground where the piles lie continually under water, in which ſituation they will harden like a ſtone; but being kept in an unconſtant temper as wet and dry, they rot immediately. It was made uſe of under the famous bridge at Venice, the Rialto, which is thrown over the grand channel. The wood is uſeful for all purpoſes that its ſize is fit for, ſo that it continually lies wet; as water-pipes, troughs, ſluices, *&c.*

ARBOR-

ARBOR-VITÆ,

Or Tree of Life; is often planted for its pleaſant green leaf, and grows of layers or ſlips to a tall, ſtraight and goodly ſize, being hardy in all extreams. The wood is excellent for the turner.

A S H,

Is reputed male and female, the one effects high grounds, the other plains, having a whiter wood, and riſing many times to a prodigious height, ſo as in forty years from the key, an Aſh has been ſold for ſeveral pounds. Gather the keys from a thriving tree about the end of October, when they begin to fall (and not before) let them dry, and ſow them at any time between that and Chriſtmas, but not ſo deep as the maſt of oak and beech are ſown *(keys from the Spaniſh-Aſh beſt.)* They lie a full year in the ground before they appear, and muſt be carefully fenced. If you purpoſe the making a wood or coppice of them, plow or dig the ground as for corn, and ſow it with oats, or what other grain you like beſt; ſow good ſtore of keys, cut the corn in ſeaſon, and the year following the ground will be covered with young Aſhes, which are to be hoed and kept clean from weeds, *&c.* and well fenced from cattle that are very eager to crop them. They may be tranſplanted at eight or ten inches round, and when removed, take but little hold of the ground the firſt year; but the ſecond grow a-main.

Sometimes they will thrive well when tranſplanted at five or ſix inches diameter. Lay the keys in ſand and ſome moiſt fine earth, S. S. S. or lay upon lay; but lay them not too thick, and in a covered, yet airy place, a winter before they are ſown; and the ſecond year they will grow apace. If you cleanſe and trim them, cut not the head nor the fibrous parts of the root; but abate the tap root as you ſee convenient. Do this the beginning of October, or in November at fartheſt, and by no means in the ſpring. When young, the head is to be ſpared; but being once well fixed, cut it ſloping cloſe to the ground, which will cauſe it to ſhoot ſurpriſingly. If you gather them from the woods, &c. the head muſt be cut off, which much impairs it. Aſh may be propagated from a bough ſlipt off, with ſome of the old wood, a little before the bud ſwells, but ſcarcely by layers. By no means plant Aſh in ploughed fields, the roots being a hindrance to the coulter, and the ſhade of the tree is by ſome accounted hurtful to corn; but in and near hedges, and in clumps, &c. they will do exceeding well. In coppices they may be diſpoſed of at nine or ten feet diſtance; but in hedges, &c. at about thirty-five or forty feet. The beſt Aſh delights in the beſt land, yet grows in any, ſo it be not ſtiff, wet, or marſhy; they thrive well by the banks of clear rivers and ſtreams. Aſh has grown when the bark has been peeled off, which has been obſerved in foreſts, &c. The ſeaſon for felling is from November

vember to February; for if cut down too early or too late, ſubjects it to the worm. When pollards are to be lopped, let ſuch be done towards the ſpring. When a pollard comes to be conſiderably hollow at the head, cut it down, and when the hicwalls or wood-peckers make holes in it, which denote its being faulty; fell it in the winter for fuel.

ASHES,

Have much of a rich and fertile nature in them, and therefore to be highly valued by the huſbandman, be they of what kind they will. COAL-ASHES *(Sea-coal the beſt)* for cold meadow and paſture land, are a very great improver, inclining the ſoil to produce wild trefoil and clover, which of all hays, is the beſt for cattle, and commonly brings it in ſuch abundance that the land will keep a double quantity of ſtock. This is alſo a very laſting manure, more eſpecially if about twenty loads are laid upon an acre; though much leſs may do, as ſix or eight loads. This manure is better for paſture than tillage. SOPE-ASHES, after the Sope-boilers have done with them, are excellent manure for tillage and paſture, and are deſtructive to furz, broom, and fern, more eſpecially ſo, if applied after ſtocking and grubbing up about midſummer, and commonly laſts four or five crops. POT-ASHES are alſo a very good manure for paſture grounds; but as the wet is left in them by the pot-men, and the lyes having drawn off the greater part of the ſalts, there-

fore a greater quantity is to be laid on the land than of Sope-aſhes. Nothing is more injurious to Aſhes than expoſing them to wet, rain, &c. and nothing more ſtrengthens them, than often wetting them with chamber-lye and ſope-ſuds, one load ſo moiſtened, is better than three expoſed to the weather, and not ordered after this manner. The Aſhes of any ſort of vegetable are profitable for enriching barren land, as is evident from the great improvement that is made by burning fern, furz, heath, ſedge, ſtubble, bean-ſtraw, &c.

AVENUES, WALKS, &c.

Moſt Walks ſhould be made to lead to the front of an houſe, garden-gate, highway-gate, or wood, or to end in a proſpect, &c. For an Avenue to an houſe, whatever the length of the Walk or Viſto may be, it ought to be as wide as the whole breadth of the front, and if it be long, the wider the better. Walks, &c. to woods, proſpects, and other ſuch things, ought to be ſixty feet broad; and it is alſo adviſeable not to plant the trees nearer together than thirty-five or forty feet in the row; and the ſame diſtance to be obſerved when ſet for a regular grove.

B.

BANK-FENCE.

The beſt and cheapeſt, where flat ſtones are not to be had, is to dig green turf about a ſpit deep, the breadth

breadth of the ſpade *(whether wide or narrow)* and four or five inches thick; theſe turfs are to be laid with the graſs ſide outwards, and even by a line, leaving a foot of ſolid earth towards the ditch on each ſide the bank, to prevent its ſlipping in. On the top of the before-mentioned turf; lay another courſe as before, and fill it up with the earth taken out of the ditch, and ſo proceed by banking and filling up till you have raiſed it to the height deſigned, which may be to that of three or four feet more or leſs, as occaſion requires; but according to the height you are to proportion the breadth, ſo as to give it a proper ſlope, and that it may be three feet broad at top. Upon this platform, plant the quickſets *(which are to be ſtraight, ſtrong, and good)* in a double row; by which method you will have a fence of feet high, beſides the hedge growing on it, will be continually verdant on both ſides like a green wall, and ſufficient to keep all ſorts of cattle within their bounds; beſides the graſs roots will bind the turf ſo cloſe, that in a year's time it will become intirely ſolid, and will be yet ſtronger when the roots of the quick come to bind together in the ſame manner.

N. B. *The quick may be either of black or white thorn, but by no means crab. If on both ſides without the ditches were planted aſh or elm, would make the whole look very ſtately, as well as be profitable.*

BARLEY.

It is a very uſeful grain, and hardier than is commonly imagined, and therefore may be ſowed more early than it commonly is, as in February, the ſucceeding froſts not hurting it; but ſome regard ſhould be had to the ſoil and ſituation, and lying of the land on which it is to be ſown. Early ſowing ſuits beſt with a ſound deep ſoil, and that under furrow, or one half under, and the other above furrow. A very light ſoil that runs much to weeds, or land (otherwiſe) by ſome accident foul, * a later ſowing will be moſt agreeable; but under furrow, or at leaſt as before. Great care ſhould be taken to weed Barley in May, not only cutting the thiſtles out, which may be done in an erect poſture; but by bending to it, and pulling out the weeds by hand, namely, docks, thiſtles, carlock, and all other annoying weeds, as is practiſed with great ſucceſs in the Vale of White-horſe, and round about Oxford, *&c.* If after ſuch weeding, the crop appears thin, it is adviſeable to ſow the ſame with pigeon, or hen-dung, malt-duſt, or kelp-aſhes; but where theſe are not to be had, take fine mould which has lain long, and well digeſted, that has been thrown out of dry ditches, or from under wood-piles, *&c.* and ſow it on the land as the before mentioned dungs, *&c.* are ſown, which will greatly help the crop.

* Bath ripe Barley will bear ſowing later than any of the other ſorts, and will be ripe as ſoon as the other, or ſooner; therefore proper for the north.

BAR-

BARREN-SPRINGS,

Are ſuch as uſually flow from coal-mines, or other ſulphurous minerals, which are prejudicial to lands, as being of a brackiſh hard quality, that will kill plants inſtead of nouriſhing them, as urine, dung, or ſalt will do, if not applied in due quantity. However, it is very probable, that even theſe waters would make a conſiderable improvement, if ſparingly uſed, and more eſpecially in wet times, when a great quantity of other waters mix with them. They are generally reddiſh, leaving a ſediment of the ſame colour, and are much better when they have run ſome diſtance, than at their firſt breaking forth.

BEANS,

Should be ſown under furrows, let the land be never ſo ſtrong, and that upon the ſtubbles: the furrows ploughed thin, and laid flat, and, if poſſible, in February. The froſt will not hurt them after that time: but in March, or as ſoon as they begin to peep (*and after rain*) harrow them, to mellow and looſen the earth, and break the clods, and make it more fit to receive the fattening dews. This method beſt ſecures the ſeed from rapacious fowls and birds, and gives a proper depth of earth, and is a defence and ſecurity againſt the midſummer droughts, when they are in bloſſom; for at that time, if the ſeaſon is dry, and the Beans have not a ſufficient

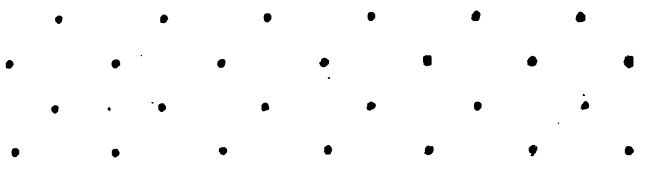
ſufficient depth of earth, they wither, and never recover it, to the no ſmall detriment of the farmer. Land over rank cauſes them to run to ſtraw, more eſpecially if it be of the better ſort; but a lighter ſort of land cannot well be dunged and forced too much. It is a general error to ſow them promiſcuouſly as the common method is; a better method is, to plant them by a line (*after the land is deeply ploughed*) at about three feet between each row, as is practiſed with great ſucceſs and advantage in the counties of Berks and Oxford, *&c.* Although the expence is more as to labour; but that is ſaved in the ſeed, a much leſs quantity being ſufficient to ſow an acre this way, than what will be wanting the common way, and being planted in rows (*as others do in a quincunx, as is common in planting trees.*) They are to be kept clean by hoeing (*which is always done by every good huſbandman*) drawing the earth to the roots, which keeps out the drought, and the land clean, and is always fit for a crop, as is done upon land in the Vale of Whitehorſe, in Berkſhire, there called every-years-land, and as I have been there informed, has not had a *Lay* in a whole CENTURY.

In order therefore to plant, it is common for two perſons to work upon the ſame ridge (*or land*) who are prepared with a line fixed to two ſmall ſtakes, and each perſon having a ſtick of that length, the rows are intended to be aſunder, and each perſon has a bag tied about their waiſt, with a proper quan-

quantity of ſeed in it: likewiſe each being prepared with a tool, made in the form of the top of a ſpade-handle, capt at the lower end with a point of iron (*ſteel, or iron mettled, better*) and about ten inches long, and where uſed, called a *Dibber*, or *Dibble*. The line being laid and ſtaked, the planter makes a hole with this inſtrument with one hand, whilſt the other is taking two, three, or four Beans out of the bag, which are immediately dropt into the hole, and a little mould put upon them with the *Dibber*, and that with great dexterity, all which I think is moſt commonly performed on the knee, with a *Haſſock*, unleſs upon a wide land, or ridge, they riſe to remove the line. I muſt beg pardon of the fair ſex, for mentioning, that they have a ſhare in this laborious part of good huſbandry.

N. B. *They are afterwards to be harrowed, as when ſown.*

The form of the quincunx, that makes one row over the land, or piece.



The above form, is the moſt proper to plant trees in, whether coppice, woods, &c. *Viſtoes,* &c. *excepted, which are to be planted in oppoſition.*

BEECH,

BEECH.

Is of two or three kinds, and accounted among the maſt-bearing trees. Mountain-Beech is the whiteſt; the wild or Field-Beech is blacker, but more durable. They are both raiſed from maſt, and managed like the oak; but if you deſign a nurſery, the maſt muſt be uſed as the keys of aſh, ſowing it in autumn, or later, even after January, or nearer the ſpring, to preſerve them from vermin. They may be likewiſe raiſed of young ſeedlings, drawn out of places where fruitful trees grow. In tranſplanting, cut off only the boughs and bruiſed parts about two inches from the ſtem, to within a yard of the top; but be quite ſparing of the roots. They make ſpreading trees, and noble ſhades. For an avenue, *&c.* plant at forty feet diſtance; but in foreſts, *&c.* they grow taller, and more upright. In low grounds where they ſtand warm, they grow to a ſtupendous height, though the ſoil be barren and ſtony; they will alſo thrive well on the ſides and tops of chalky hills and mountains, inſinuating their roots into almoſt impenetrable places. If the timber lie altogether under water, it is little inferiour to elm, but abhors wet and dry: and where it lies quite dry, is a good deal ſubject to the worm. The maſt of this tree is excellent food for deer and ſwine, which may be turned to it in the beginning or middle of September. The fire conſumes it very faſt.

BIGG,

BIGG, or Big,

According to Mr. Laurence, "Is a grain known "only in the North, and deſerves to be *baniſhed* "thence; for the drink made of it is very diſ- "agreeable to ſtrangers, and affords not a pro- "portionable ſtrength equal to the ſame quantity "of Barley, which yet exceeds it in price about "two-pence in the buſhel. 'Tis alſo a miſtake, "to think it will grow and thrive where Barley "will not; for it requires both the *ſame manage-* "*ment*, and the *ſame ſoil*: neither will it afford "a *greater encreaſe*; for tho' it hath a ſquare ear, "and *four rows* of corn, yet the advantage is "more than counter-balanc'd by the *leanneſs* of "the grain, and the *thickneſs* of the ſkin." *Vide his Appendix to his Land Steward*, p. 185.

BIRCH,

It is propagated by roots or ſuckers. If you intend a coppice, plant at about nine feet diſtance in ſmall twigs, or ſuckers, having roots, which will ſoon flouriſh, and ſooner ſo, if they affect the ground, which cannot well be too barren, even that ſort which will ſcarcely bear any graſs, will produce it of its own accord. After the firſt years growth (as in aſh) cut them within an inch of the ground, which will cauſe them to riſe in ſtrong tufts, fit for coppice and ſpring-woods. If they are intended for ſingle trees, plant them at thirty-

thirty-five, or forty feet diſtance, and reduce them to a ſingle ſtem; from ſuch the birch-wine is drawn. They will grow upon a black, or any other blowing ſand, or any other poor land that will hardly produce any thing elſe, and in coppices, turn to great account for *beſoms*, &c.

BLACK-OATS,

Are commonly ſown upon an etch-crop, or on a lay, which is to be ploughed up in January, when the earth is moiſt: great care muſt be taken to turn the turf well, and to lay it even and flat; and at the latter end of February and in March, they may be ſown, being a hardy grain, that will bear both wet and cold. They will grow on any ſort of land; but delight more in a moiſt and cold, than in a dry ſoil. When cut, let them lie for dew or rain to plump, or fill them, which will make them thraſh the better; but if they have ſuſtained a good deal of rain, carry them as ſoon as tolerably dry, to prevent ſhedding. White oats are apt to ſhed moſt as they lie, and black as they ſtand.

BLACK-MOULD, or Earth,

Is good both for corn and graſs; but more ſo, if rich, notwithſtanding porous, light, and tenacious, with very little or no mixture of ſand or gravel; ſo it riſes in great clods when firſt broke up with the plough, and breaks and moulders with the

the froſt. But as theſe lands frequently lie in bottoms, and conſequently low, their wetneſs often is deſtructive to *corn*; but where they prove dry and ſound, they are preferable to moſt others, producing large and heavy crops, eſpecially barley, and will bear excellent wheat upon an etch. Their natural produce is thiſtles, docks, nettles, and all ſorts of rank weeds, but more particularly excellent graſs. They will alſo bear the beſt of clover, and are beſt manured with chalk, lime, and moſt ſort of *dungs*; but a mixture of cow and horſe dung the moſt proper, that of ſwine only excepted. Where theſe lands are very luxuriant and deep, turn to a ſurprizing account being planted with liquoriſh, as is practiſed with great ſucceſs in the counties of Northampton, Nottingham, about Godalming in Surrey, and about Pontefract in Yorkſhire, &c. They may alſo be ſown with hemp, madder, cole, rape-ſeed, woad, and any other advantageous commodity that is moſt ſuitable to a rich ſoil, and agreeable with good land; and afterwards with *corn*, when its luxuriancy is ſomewhat abated.

BLACK-THORN,

Is not reckoned ſo good for quick-fences as the white, becauſe more apt to run into the ground, and on planting, is not ſo certain of growth; but then the lop is much the beſt and the moſt laſting of all other for dead hedges and mounds,

or

or for the ſtopping of gaps, and cattle are not ſo apt to crop them as the other. They will grow upon the ſame ſoil as the white; but the better the ſoil, the better they'll proſper. Some plant them with the crab, and make a ſtout fence.

BOAR,

Should have a truſs body, a thick head, long ſnout, large hanging ears, and ſhort and thick thighs; but the Wiltſhire breed from Axford, are choſe by their upright ſharp ears; thoſe ſwine that are moſt ſo are accounted the beſt; but then they are to be deep ſided, and ſhort leg'd. This ſort are moſtly red, and red ſpotted with black, and in Northamptonſhire, &c. are called the Berkſhire breed. A boar is fit for the ſow from ten months old to four or five years; but a boar of three years is accounted the beſt for *brawn*, provided he has a good ſhield.

BOGGY-LANDS,

Are of two ſorts, firſt, thoſe that lie between hills, which yet have deſcent enough to drain them. Secondly, ſuch as lie in and upon levels and fens. There is a third ſort that lie on the brow of a hill, or knob: the firſt and third are fed by ſprings pent up and preſſed by weight of earth that ſtops in the water, and cauſes it to ſpread in the ground, which may properly be compared to a dropſy in the human body, and ſuch

ſuch ground may be ſaid to be dropſical. In order therefore to drain ſuch lands, obſerve *(or by an inſtrument if required, find)* the loweſt part, and where the greateſt deſcent lies, and likewiſe the moſt proper place to convey the water off the adjoining land: theſe being premiſed, the beſt way then, is to begin the drain at the loweſt and moſt diſtant place, and ſo carry it into the bog, where you are to make ſuch trenches either round or croſs the bog, as you ſhall find neceſſary for the abſolute draining it. Be ſure cut the drains and carriages a ſpit below the bottom of the bog, or all is to no purpoſe, and by all means prevent as many angles and turnings as poſſible; for theſe will occaſion ſtoppages, and tend to the filling up the trenches and carriages; then with good green faggots of alder, elm, willow, water-ſallow, black-thorn, *&c.* lay a courſe in all the trenches and carriages thro' the whole work, then take the turf firſt taken off the top of the trench, and lay it on the faggots with the ſweard downward, and fill up your works level, and ſow the top with natural hay-ſeed, or hay-duſt. But a better method is, to fill the drains with pebbles, flints, or other large ſtones of little value; cover them up, and proceed as before. Moſt commonly in cold ruſhy land, the moiſture, and cold hungry water lies between the firſt and ſecond ſpit; and then you come upon a ſort of a gravel and ſtony ſtratum, in which lies the water, and ſometimes

below this is a ſharp hungry gravel, and often all this lies two or three ſpit deep: but in boggy land it commonly lies deeper than in land purely ruſhy; but always obſerve to go deep enough; for it ſometimes happens, that at the head you muſt dig ſeven or eight feet deep, and yet not be able to drain it. In bogs, the upper ſtratum is generally a black earth, or turf, which is commonly two or three feet thick, and then you come to a white earth like lime, and then to gravel or ſand, where the water lies, which is nothing but a compreſs'd ſpring that wants a vent.

There is another method of draining RUSHY-LAND, where the water lies about the ſecond ſpit, which is performed in the counties of Northampton and Oxford, *&c.* after this manner. A perſon with a keen ſpade takes off the turf twelve or fourteen inches broad, and as much long (cutting the ſides with the ſpade a conſiderable length firſt) and turns it over carefully without breaking it, then digs as deep as is neceſſary, perhaps as deep as broad; then with an inſtrument purpoſely made, about five inches over, and three or four in depth (in form of a large auger) which the operator thruſts along the middle of the trench, the length of the auger (or ſcope) and lays the mould ſo taken out by the ſide to the other mould before taken out, and ſo proceeds to any aſſigned length; when done, the turf is taken

and

and laid over the laſt-mentioned perforation, with the ſweard downwards, then the trench is filled up, and the remains ſpread upon the land, and the bare place ſown with natural hay ſeeds. This is attended with ſurprizing ſucceſs; but avoid angles (as I ſaid before) as much as poſſible. At their meeting, ſet them and cover them with flat ſtones, as in a common ſewer, which will prevent choaking, and the water ſtagnating, and a ſurcharge of opening.

Mr. *Switzer*'s method of draining land by artificial tubes of clay, which has proved very uſeful in the draining of *paſture*, *arable*, or wood lands, is as follows.

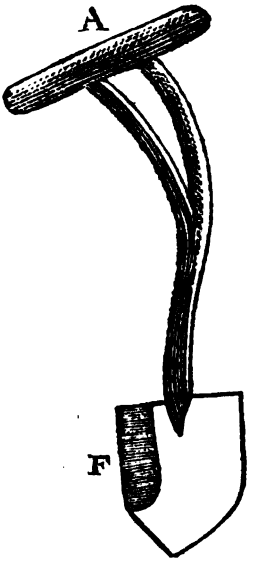
" Be provided *(ſaith he)* of three or four nar-
" row ſpades about eight inches wide, and fifteen
" inches long, with a handle put into a ſocket
" and ring, with a tread round it, to ſet the foot
" on to dig *(a common ſpade better)* and at every
" twenty feet aſunder, if neceſſary, and more eſ-
" pecially if the ground lie near a level, dig a
" narrow trench of about ten inches or a foot
" wide at moſt, quite through, a foot and half
" within the clay. Then take a wooden rowl of
" about five inches diameter at one end, of four
" feet long, and four inches diameter at the other,
" and placing this rowl at the bottom of the
" trench, take the clay you had before dug out,
" and with a rammer ram it round the rowl,

" which will form a perfect tube: and the rowler " being bigger at one end than the other, you " may by the help of a chain faſtened to the " bigger end, pull it out of the tube; ſo that " proceeding four feet at a time, you go through " your trenches from end to end, taking care to " keep the extremities of the tube open. He " ſaith, there ſhould be a handle of about four " feet long mortiſed into the great end of the " rowl, by which the workmen ſhoggle about the " rowl, ſo as to looſen it in the tube, by which " means the rowl will be eaſier drawn out by the " chain. But before that is done, you are to " punch a hole about three inches diameter, " through the rammed clay upon the top of the " rowl, through which perforation all the water is " to paſs that comes from the ground above, " down into the under-ground drain or tube be- " low: but ſtill to keep this perforated hole open, " ſmall artificial faggots of green aquatic woods " ſhould be laid upon it with a tile at top, to ſe- " cure it from any impreſſion that may come from " above. And thus (ſaith he) you have a clay " field as hollow and unfit to retain ſtagnated " water as a *ſieve*. Theſe tubes he has known " perform their office twelve years, even in " plough'd lands, where the diſorder of horſes " might be ſuppoſed to ſpoil the whole ſcheme. " It coſts about twenty ſhillings an acre, each " drain at about twenty feet diſtance." (See *Switzer's* Fruit-garden.)

(BOTE,

(BOTE, *vide Houſe-bote, &c.*) BREAST-PLOUGH,

Is an inſtrument of particular uſe, to pare off the turf of ſuch lands as are intended to be improved by burn-beating, Denſhiring, or Devonſhiring. It is made after the following manner, and is for a man to ſhove before him, being laid to the breaſt, as the name imports. At F is a ſharp edge or fin turned up, that cuts the turf off from the adjoining green ſweard, by means of which, when the turf is cut about a foot and half



At A it is bound about or covered with rags or ſuch like, to make it eaſy for the breaſt.

Vide *burning of land, &c.*

long, with this plough, the workman turns it over upon the plough'd part, without any other

inſtrument. It is to be pared about three quarters of an inch thick, unleſs the land be full of ſtrings, roots, or ſome combuſtible matter, then if pared thicker, it's the better.

BRICK-MAKING.

Dig up the clay between Michaelmas and Chriſtmas; by ſo doing, it will have ſufficient time to mellow, ferment, and digeſt, which is a principal article to the making good ware, and it will be fit to be tempered about March and April. The clay ought to be trod and temper'd very high, much more than is common; for the goodneſs in a great meaſure depends upon the well performance of its firſt preparation; for the clay, before it is wrought, is generally brittle, crumbly, and duſty; but by adding ſmall quantities of water gradually to it, and by well working and incorporating it together, you open its body, and an *aſtringent ſal-nitral* power appears, which impregnates the whole maſs, with a tough, glewy ſtrong band, or ſubſtance: but if in the tempering of Bricks or Tiles, you over water them, as is the uſual and too common method, it quite ſpoils them, and deſtroys the end for which they are intended; I have known ſome workmen, that work in water, that is, they wet the mould the Bricks and Tiles are made in with water inſtead of dry, fine ſifted ſand: the doing of which makes them almoſt as brittle and crumbly

ly as the matter they are made of, whereas otherwiſe they become ſmooth, ſolid, hard and durable. Nay, by working them properly, one brick or tile will take as much clay as almoſt one and a half made the contrary, *&c.* they are ſpungy, light, and full of cracks for want of due working, and good management: the mixing of aſhes, light ſand, and earth, will make them work eaſier, and with greater diſpatch, and will alſo ſave fewel in burning; but all this tends to the deſtruction of the ware. Again, Bricks made of good clay, and well tempered, are ſolid and ponderous, and will take up longer time in drying and burning, than thoſe made the contrary way; and it is further to be obſerved, that the well drying of Bricks and Tiles before they are burned, prevents cracking and crumbling in the burning; for by being too wet, they are in an extream, in oppoſition to the fire, by which they are to be converted (as it were) into another matter. As to ordering the fire, make it gentle at firſt, and encreaſe it by degrees as the Bricks and Tiles grow harder. Bricks and Tiles may be made of divers ſorts of clays and earths, that are clear of ſtones, if not, to be cleanly pickt; for in the burning, the ſtones or flints crack and fly by the force of the fire, which occaſions blemiſhes. It is to be obſerved, that all clays will not burn red; for in Northamptonſhire, we have ſome that burn to a ſort of aſh-colour, which is ponderous, and very heavy, and the moſt durable of any.

N. B. A yard ſquare of ſolid clay will make about ſix hundred of Bricks; and the workman has from five to ſix ſhillings a thouſand for making.

BROOM,

Has its contrariety of uſes and qualities, being both an improver and an impoveriſher, according to the quality of the land it grows upon. For if the land be capable of improvement, in this caſe it may be ſaid to be an impoveriſher, if otherwiſe, it may be called an improver; for the land is more valuable for its bearing a crop of Broom, than bearing nothing, or at leaſt nothing ſo valuable as Broom: I ſay in this caſe, it may be ſaid to be an improver; and of lands that may be improved by Broom, are ſheer white and black, duſty blowing ſands, ſuch I have obſerved a great part of Windſor-foreſt, *&c.* to be. The Spaniſh Broom is more ſweet and beautiful than the Engliſh, and may be propagated here from ſeeds with equal ſucceſs. In the weſt of France, and alſo in Cornwall, it grows ſurprizingly high; and Broom well laid makes an excellent thatch; but is very pernicious to improvable land, as ſhedding no leaves; but on the contrary, is continually ſucking the very heart of the land that breeds it. The beſt and moſt practicable way to deſtroy it, is, to root or ſtock it up, and burn-beat, manured with aſhes, or rather with chalk, marle, *&c.* It is alſo

alſo deſtroyed by cutting it down to the ground at the ſpring of the year, and about Midſummer mow it down as low as poſſible; after which it will riſe again, yet a ſecond mowing generally effects the cure.

BUCK-WHEAT, or FRENCH-WHEAT,

Is a grain much improved in divers parts of the kingdom, as Eſſex, Norfolk, Suffolk, Surrey, *&c.* and turns to good account, being ſown on barren, ſandy lands. One buſhel of which will ſow an acre, and commonly an acre produces fifty buſhels, ſo great is the increaſe. It is commonly ſowed about St. Matthias, and if, about Midſummer, when in its full pride and bloſſom, it was ploughed in, would prove as good a manuring, as twenty load of dung upon an acre. It is excellent food for hogs, poultry, *&c.* After the grain is mown, it muſt lie till the ſtalks be withered, before it is houſed, and there is no danger of its ſhedding its ſeed, or ſuffering by wet. It is good food for cattle while young, particularly milch-cows, and increaſes their milk very much, and adds greatly to the goodneſs of the butter and cheeſe.

BURNING of Land for CORN.

This art is commonly called Denſhiring, *alias* Devonſhiring, (as being there moſt uſed or firſt invent-

invented.) In the counties of Hants, Wilts, *&c.* it is called burn-beating. It is not neceſſary to burn-beat all ſorts of lands; but only that which is ruſhy, heathy, and ſour, be it either hot or cold, wet or dry. The improvement is ſo very great, that moſt ſorts of the above-mentioned lands, will yield in three years time after ſuch burning, more than the inheritance was worth before, excluſive of all charges. The common method of doing it, is with the before-mentioned breaſt-plough to pare off the turf, about three quarters of an inch deep, turning it over as it is cut, that it may dry the better, yet there is no neceſſity for ſuch turning in a very dry ſeaſon: but provided the ſeaſon is hazardous, it is not only neceſſary to turn the turf, but alſo to ſet it a little hollow, ſomething like the ſetting of oak-bark when it is firſt ſtript off the tree, about two wheel-barrow loads on an heap; and if the turf be full of fibrous roots, or has a good head upon it, it will burn without any additional fewel; if otherwiſe, the heap is to be raiſed on a ſmall bundle of ſtraw, ling, goſs, fern, or ſome ſuch like matter; burn the turf as green as poſſible, for ſo it beſt yields its *nitrous ſalts, and the better fixes them.* When burnt, let the aſhes lie till a little ſodden with rain before they are ſpread; or take the advantage of the wind, that it hinders not the equal ſcattering them. Care is to be had that the turf is not over burnt, for by reducing it to a white aſh,

aſh, the nitrous ſalt is exhauſted, diſperſed and gone, and nothing but the terrene earthy part left behind; but doing the ſame by a ſlow fire, the volatile part is preſerved, and the maſs is endowed with a fixed ſalt, which nothing but time can ſeparate and exhauſt. There is ſome neceſſity to pare the ground a little deeper with a ſpade where the heaps lie, to abate the over-fertility occaſioned by the fire in that place: the land muſt alſo be ploughed but ſhallow, and not more than the uſual quantity of ſeed ſown upon an acre, and that alſo later in the year than it otherwiſe would be: if wheat, about the latter end of October, which will prevent the over rankneſs of the crop, by which the great advantage of burning land may be judged of, and the pooreſt heathy downs and plains will admit of this improvement.

Some farmers, with the parings of the earth, burn the roots of the goſs, whins, broom, and the like, which have been before grubbed off the premiſſes, *&c.* as others do the ſtubble they can muſter and rake together, whilſt others pare off the heath, turf, *&c.* and make them into little hills, and burn all to aſhes, and into every ſuch hill, put a peck of unſlack'd lime which is covered with the aſhes, and ſo let it continue till rain comes and ſlacks the lime, after which, both are mingled together, and regularly ſpread over the land. *Vide* breaſt-plough.

BURN-

BURNING and BANKING of Meadows and Paſture-land,

Is a material part of good huſbandry, where the ground is moiſt, cold, clayey, ruſhy, *&c.* the paſture, hay, *&c.* being ſhort and ſour, and not improveable. It is an extraordinary piece of good huſbandry to pare off the turf as before-mentioned, about July or Auguſt, and proceed in the manner as in burn-beating for corn: ſome plough the land up immediately, while others ſtay till the ſpring following, and then ſow the land with natural hay-ſeed brought from better ground: others ſow with hay-ſeed and corn (which is beſt) by this management, that acid juice wherewith the ſurface was imbibed, is hereby evaporated, and totally taken away, and alſo the ſour unſavory graſs is hereby utterly deſtroyed, and the land made capable of producing a better ſpecies brought in the ſeed from other diſtant meadows and paſtures. But then if the land is poachy, it is to be laid dry. (Vide *draining of land.)*

If full of banks, *&c.* ſome, and indeed moſt farmers, order the bank or mole-hill to be pared off, the ground ſcoped under the bank, and the mould to be taken from the turf, and the turf laid down in the ſame place, but lower than the ſurface, to drown the ants and piſmires, and then after a froſt,

froſt, or other melioration of the mould ſo taken out, to beat and ſpread it over the land, and the places where the bank ſtood are immediately covered with ſweard, ſo that there is little or no loſs of herbage. This I ſay is the moſt practiſed, and common way, and to thoſe that look upon things only ſuperficially, will appear very plauſible; but then, let ſuch conſider, that the ſweard or turf, growing on ſuch banks, is quite of a ſterile nature, bearing nothing but bents, mouſe-ears, thyme, *&c.* which being laid down again, will not preſently be improved, and if the ſmalleſt matter of turf be left at the ſide of the bank unpared, the ants or piſmires there remaining, will ſoon raiſe another hill, although the bank itſelf be laid lower than the ſurface, to drown them out, as aforeſaid.—A piece of land done after this manner, in *1757*, I obſerved this ſpring, *1759*, and found, that the greater part of the banks, *&c.* are coming on, and grow very faſt, and the ſweard but little reclaimed from its former ſterile nature, although the hills were large, and conſequently produced a great quantity of mould; but then, the mould of ſuch hills is generally of as ſterile a nature as the herbage that grows upon them.

I beg leave therefore to offer a method of my own, as I may with ſome propriety call it ſo, having never ſeen or heard of it before.

Viz.

Viz. Let the banks, mole-hills, *&c. (whether on meadow or paſture land)* be pared off even with the ſurface, with a banking-iron or turfing-ſpade, *(of which in its proper place)* and the greater part of the mould be taken from the turf and be cut in pieces to meliorate; but carry the turf when tolerable dry, and lay on heaps, ſo that ten or a dozen loads *(more or leſs)* be on one heap, and by the help of ſome combuſtible matter, as dry ſtraw, furz, *&c.* ſet them on fire and burn them, which if not over burnt, will be of the colour of a half burnt brick: let all this be done at the latter end of the year, yet as ſoon as the graſs is pretty well eat off the ground, that the turf may get tolerably dry, juſt ſo as to burn; then about Candlemas get a ſufficient quantity of *hay-duſt*, and after raking the bare places with an iron tooth'd rake, ſcatter the hay-duſt upon them; then beat and ſcatter the mould over the whole, and after the froſt has well meliorated this ſcatter'd mould, ſpread the aſhes, and harrow it well with a buſh-harrow, till it is very fine. By this method, the *ants* or *piſmires* are totally deſtroyed, the bare places will produce better ſpecies of graſs, and you will have twice as much the next crop as otherwiſe you would have the common way, which is owing to the nitrous quality of the aſhes, which will anſwer the purpoſe better than twenty loads of dung upon an acre; but if the whole ſubſtance of the *banks* were burnt, the *land* would remember

member it a ſeries of years, for no better *(nor indeed ſo good)* ſuper-inductions can be laid upon the *land*. Vide *trenching of land*.

CALVES.

The beſt *(or at leaſt)* the moſt common time for calving for the dairy, is from the latter end of March, to the beginning of May, for then graſs begins to come to its perfect goodneſs, which will conſequently produce the greateſt increaſe of milk; but yet thoſe that grow ſufficient quantities of fodder may keep a large winter dairy, which muſt be allowed to be the moſt profitable; for then *veal* and *butter* bears the beſt price; but in thoſe parts of the kingdom, where cheeſe is the produce of the dairy, a ſummer one in all points has the preference.

As to the making good veal, I ſhall give Mr. Lawrence's method, taken out of the Appendix to his Land-Steward *, in his own words: "That "the myſtery of having good *veal*, lieth in mak- "ing *fat*, *white*, and *well taſted*. The laſt qua- "lity is often wanted when the two former pre- "vail; which is plainly owing to a too frequent "and *over-bleeding*. To obtain therefore *all of* "*them*, no better nor more certain method can "be had, than what I obtained from a near re- "lation, who, for the good of the public, has "given me leave to inſert it: let the calf be laid

* P. 191.

"dry,

" dry, on *clean ſtraw* every day laid upon the " old, and coop'd up in a little room, but not " too ſtifling, where the ſun comes: his bed " ſhould be raiſed a foot from the ground, hol- " low'd with hurdles, ſo that the urine may quick- " ly paſs away, at the ſame time, taking care " that the calf may not come at the wall or " ground, to lick it, as he greedily will if not " prevented, inſtead of which, a chalk-ſtone " ſhould be hung up in a ſtring, to encourage " his licking *that*, for it will add to the beauty " of the veal.

" Thus far the practice is pretty well known; " what follows is not ſo: for it is a great miſtake " to let the calf for the firſt fortnight *ſuck* as " much as he will; juſt to keep him *alive* and " well, is enough; and after that, let him blood, " and encreaſe his *quantum* till he is three weeks " old, when you are to doſe him with a PILL " night and morning, made up only of *Aniſeed-* " *water*, and the powder of chalk; the pill " ſhould be about as big and as long as a man's " thumb, made up to the conſiſtency of paſte, " at the ſame time it is uſed, for otherwiſe 'twill " be dry and hard. The reaſon of this preſcrip- " tion is founded on this; that if the calf is *laxa-* " *tive*, he will never thrive or be fat, and there- " fore all art ſhould be uſed to make him *coſtive*; " and this end is effectually obtained by this " compoſition: and tho' it ſometimes abates his

" appe-

" appetite to the milk, yet he will not notwith-
" ſtanding grow very fat the laſt fortnight, dur-
" ing the time of his pills; for it is no profit to
" keep a calf above five or ſix weeks at moſt, al-
" tho' the practice about London extends fur-
" ther; yet neither is their veal ſo *delicate* or *well-*
" *taſted* as that which is thus managed, the fat of
" which is obſerved to be hard and firm, and the
" fleſh exquiſitely white and fine, by only two
" bleedings, once as before, and the ſecond a week
" before he dies."

When a weaning calf ſcours; take clay that is burnt till it is red, or tobacco-pipes a proper quantity, to which add a little powder of charcoal, in all an ounce, which put to a pint of *verjuice*, and give it at once or twice, as you ſee occaſion. It is no mean thing.

As to rearing of calves, ſome uſe the method of rearing upon the finger (*as it is termed*) with ſcum'd milk *luke-warm*, and do not ſuffer the calves to run with their dams. It would be proper for thoſe that keep ox teams, to rear two calves for oxen, and two for cows every year, to uphold and preſerve their ſtock, as it is a maxim in huſbandry, that a farmer ſhould always be a ſeller, and not a buyer. Moreover, for the weaning part, it is better to wean at graſs than at houſe, not only becauſe it will be attended with leſs charge; but becauſe rearing of calves with hay and water, makes them have great bellies, as they have not the advantage of ſtirring about as they have at

graſs, and are therefore very apt to ſcour when turned to graſs.

As to the gelding of calves, ſome do it young, others when thy are about a year old, which is accounted the moſt dangerous time; but by the more underſtanding farmers, it is done at about three weeks old, and in caſe of an impoſtume, burn his ſtones to aſhes, and ſtrew the powder upon it, which is a certain cure. Others uſe melilot and adders-tongue ointment, which alſo is very proper and ſafe.

And further (*concerning the raiſing of calves, and of a breeding ſtock.*) It is founded upon reaſon, that without raiſing, the whole ſpecies would ſoon be exhauſted; but then, it is not the *intereſt* of every *farmer* to raiſe calves; the price of the land, and in what part of the *kingdom* it lies, is to be maturely conſidered. For where a *farm* conſiſts of valuable land only, and is within ſeventy miles of London, or near a *city* or *great town*, where butter bears a good price, and veal ſells well, I apprehend the dairy will anſwer better this way, than in the breeding ſtock; but, if within the above-mentioned diſtance, where a farmer has indifferent and low prized land with better, he may breed and *dairy* too; but I remember of a boy, what was ſaid by an eminent *Grazier* (*a relation of mine*) in Northamptonſhire, that he out of curioſity raiſed a conſiderable number of calves, for two years together; "But, ſays he, they were ſo "long before they made a return, that if I had "not

" not made a quicker by other *things*, or been " otherwiſe able to have paid rent, I might have " been ſeized on before the calves would have " paid it." But then, his land was too valuable for breeding, and his genius led him a different way, namely, to that of feeding oxen for London, *&c.* In the North, and other remote parts of the *kingdom*, and upon low prized indifferent *land*, the farmer cannot make a better return, than by keeping a breeding ſtock; and can afford to ſell his young cattle to the farmers in the *midland* and more *ſouthern* parts at a much cheaper rate than they can raiſe them. *I now ſpeak of generals, not of particulars.* The like will hold good alſo in a breeding ſtock in thoſe parts, where the dairy is converted into cheeſe, which is moſtly made at diſtant parts from London, and the beſt is commonly made on indifferent *land*, ſo that in theſe places, a farmer may dairy and breed too, as he has a double intereſt in it; for in theſe parts, they moſtly plough with ox teams, and when the farmers have uſed them for the plough, &c. *ſeven* or *eight* years, they ſell what they can conveniently ſpare, to the more *midland* and *ſouthern Graziers*, which being fatted, are ſent to be ſold at London, &c. for immediate ſlaughter.

But after all, no particular *rule* can be preſcribed ſo as to hold good in all caſes. For Huſbandry being quite different from *geometry* and the *mathematical* ſcience, which admits of *lemmas*,

axioms, demonſtrations, &c. depends wholly upon experience and obſervation.

CATCH-LAND,

Is land that is not known to what pariſh it belongs of certainty, ſo that the tythe for that year belongs to the firſt parſon that tythes it, provided the liberties of his pariſh join the land. There is ſuch in the eaſt part of Norfolk.

CEDAR,

Is a large ever-green tree, that will grow in all climates; it grows in the moiſt Barbadoes, the hot Bermudas, and cold New-England, and where the ſnow lies for ſix months together, as it is ſaid to do on mount Libanus. It is therefore certainly for want of induſtry and care that it is not propagated here in Great-Britain and Ireland, as the cones may eaſily be brought hither. What great improvement might be made upon our preſent uncultivated mountains and waſtes, which in a century would raiſe immenſe ſums. It is raiſed of ſeeds planted like bay-berries, and the beſt ſort is to be had from the Summer-iſlands. In New-England, this tree grows tall; but upon mount Libanus, it is ſaid to grow low, and ſpread much. This timber ſaw'd into planks, makes almoſt everlaſting floors, and in all uſes it is put to works excellently fine, and is of a fragrant ſmell, but bitter in taſte, ſo that no worm or inſect will touch it, which

which renders it almoſt incorruptible. That ſort from New-England propagated here, would make ſtately walks and avenues, ſome growing as reported to near two hundred feet high. They bear a cone as the pine, &c. but rounder; the time of ſetting them here is about the latter end of March, or beginning of April, on a bed of rich mould, at leaſt two feet deep; but no dung muſt come at them; the beſt time of tranſplanting them is at three or four years old; upon which they are apt to make a ſtand for two or three years, and grow ſlow for two or three more; but after they have recovered themſelves, they grow as faſt as moſt other timber trees do.

CERT-MONEY, and *Common-Fine*,

Is a fine paid by reſiants, or reſidents of ſeveral manors to the lords thereof, for the certain keeping of the *Leet*, and ſometimes to the hundred. As the manor of Hook in Dorſetſhire pays *Cert-money* to the hundred of Egerdon; and common-fine is a certain ſum of money which the reſidents within the view of ſome leets paid to the lord thereof, called in divers places *Head-ſilver*, in others *Cert-money*, and *Head-pence*; and was firſt granted to the lord towards the charge of his purchaſe of the court-leet, whereby the reſidents had now the liberty of doing their ſuit royal nearer home, and not to be compelled to go to the *Sheriff's turn*: as in the manor of Sheapſhead in the county of Leiceſter, every reſident pays a

penny *per* head to the lord at the court held after Michaelmas, which is there called common-fine. Vide *Cowel's Law Dictionary.*

CHALK,

Is of two ſorts, the hard, dry and ſtrong, which burns to the beſt lime, and the more ſoft and unctious, which is the propereſt for manuring of land, becauſe it eaſily comes to a diſſolution with rain and froſt. It is a very great improver of moſt ſorts of land, more eſpecially of the lighter ſort, to which it gives a *tenacity*, and will even change the very nature of it, cauſing the ſoil to adhere more cloſely and compactly; but a greater improvement it makes on thoſe lands that have not been chalk'd before; and it is generally practiſed, by mixing a load of chalk with two of dung; but *mud* or *maiden mould* is better, which will make it a conſtant advantage. It is likewiſe very good for cold, ſour lands, in which it produces a great quantity of *corn*. Laid on green-ſweard, it ſweetens the graſs, *&c.*

CHALKY-LANDS,

The natural produce of which are may-weed, poppy, thyme, *&c.* For artificial graſſes, St. foyn, trefoil, and (if in good heart) clover. As to grain, it beſt produces barley and wheat; but oats will do very well. The moſt proper manures, are rags, dung, folding of ſheep, *&c.* But if rain happens to fall juſt after ſowing before the grain

is

is up, this ſort of land will bind to that degree, ſo as not to ſuffer the *corn* to get through. However this inconvenience is prevented by manuring it with half-rotten dung mixt with ſand, which makes it work ſhort. After wheat, *&c.* the farmer generally ſows peaſe or vetches.

CHAMPION-LAND, or a *Champion Country.*

A word uſed (*but more eſpecially in the Weſt of England)* for lands not incloſed, as open fields, downs, or fields without woods or hedges.

CHARCOAL.

Viz. Charded, or half-burnt coal; but more eſpecially wood half burnt to a coal: half-burnt foſſil-coal, being called Coke.

Of this, three ſorts are generally made, *viz.* one for the *iron-works*, another for *gunpowder*, and a third ſort for *wool-combers*, *ſtoves*, *chymical fires*, &c. To begin with the firſt; the others being prepared partly after the ſame manner (*ſmall-coal only excepted*) oak is the beſt wood for it, which being cut into three feet lengths, and ſet in ſtacks ready for coaling, or (*as the colliers call it*) charding; ſome level ſpot in or near the coppice, *&c.* free from ſtubs and obſtacles, is to be pitch'd upon by the collier to make the hearth on, in the middle of which is drove down a ſtake for a center; then with a cord put over the center-ſtake, deſcribe the circumference with a ſharp wooden pin, or ſuch

like inſtrument, that will make an eraſement on the ground; let this circumference be twenty feet in the ſame diameter (*more or leſs, according to the quantity of wood to be charded on that hearth, and which at one time may be done, from twelve to thirty ſtacks:* vide *a ſtack of wood.*) The ground being thus *deſcribed*, is to be bared of the turf, and all other obſtacles to be removed whatſoever, all which are to be raked up, and laid without the circumference of the hearth for its deſigned uſe; this done, the wood may be brought (*in wheel-barrows*, &c.) to the hearth, the ſmalleſt of which is to be placed at the *verge*, or outmoſt deſcribed line of the hearth, long or flat ways as it lay in the ſtack; the biggeſt is to be ſet on end round againſt, and within the ſmall, all within the verge or circle aforeſaid, till you come within five or ſix feet of the *center ſtake*; at which diſtance you are to ſet the wood in a triangular form (*or three ſquare*) till it riſes to the height of three feet or thereabouts; then againſt that ſet the larger wood almoſt perpendicular, reducing it from a triangular to a circular form (*which by altering the poſition of the wood, naturally does it with little trouble*) till it is brought within three feet of the *center*: this wood is to be laid long or flat ways, as it lay in the ſtack as aforeſaid; but take care that none of the ends of it touch the pole now to be ſet perpendicular in the *center*, which is to ſtand nine or ten feet high, that ſo there may be made a perforation from the bottom to the top (*which the colliers call the ground-hole*) which is formed

formed in working up the ſtack, and is much the ſame as the funnel of a chimney, and its uſe is for the more ready firing of the *pit*. After this go on and pile, ſetting the wood upright, or perpendicular to the other as before, till having raiſed it a yard more, it may be laid long, or flat again, and ſo continue the work, ſtill enterchanging the poſition of the wood, till the whole hearth and circle is compleated, filled and raiſed eight or nine feet high, according to the quantity of wood as aforeſaid, drawing it in by degrees in piling, till it forms a compleat *parabolic* CONOID, or a round hay-reek, from the *eaves* to the top compleatly: and in all parts equally filled with the ſmaller truncheons till it lies very cloſe, and perfectly and truly ſhaped; then lay ſome hay, ſtraw, fern, *&c.* on the outſide, and round the bottom of the heap, to prevent the next covering from falling in among the wood; upon this covering lay the turf, with the duſt and rubbiſh that was grubbed and raked together at the making of the hearth, and reſerved near the circumference as before-mentioned, with which cover the whole heap to the top of the pit ſo thick, that there may be no vent of fire but in proper intended places, and if in preparing the hearth there ſhould not ariſe, or a ſufficient quantity ſhould not be produced for the work, there muſt be a ſupply fetch'd from a proper place near at hand. Some lay over this coat another of ſand or fine mould, which if it cloſe well, need not be more than an inch and half, or two inches thick.

Next,

Next, a ſcreen is to be provided, made portable of light hurdles, and lined with a competent thickneſs of ſtraw, and broad enough to keep off the wind from an oppoſite ſide, and as high as the top of the pit, which is occaſionally to be removed.

All things being thus properly diſpoſed, and a ladder provided made of a curved tiller, its ſide muſt be made ſo convex, that it will nearly fit the pile: this ladder is not to be made with rounds or ſteps, but out of a piece of curved wood with notches cut in it for that purpoſe, to ſet the feet in, aſcend now, and ſet fire to the pile (*firſt pulling up the ſtake ſet up for the center to guide the erecting of the pile and funnel*) by throwing in at top, and letting fall to the bottom a peck of charcoal and coals upon it thoroughly kindled, and when this by burning begins to ſink, throw in more, and ſo proceed till the coals have all took fire to the vertix or top: then cut a reaſonable large thick turf, ſufficient to cover the mouth of the funnel, with which ſtop it cloſe. Laſtly, with the handles of the rakers, *&c.* make vent holes through the covering to the wood, at equal diſtance and height quite round it, about two or three feet diſtance, from a foot of the bottom, to within a foot of the top; and this not all at once, begin at the top the firſt day; the next day make another courſe, and ſo proceed as you ſee occaſion, till you come within a foot of the ground; and, obſerve this, that as the pit coals and ſinks towards the

the center, it is to be continually fed with ſhort wood, ſo that no part remains unfired, and if it chards faſter in one place than in another, there cloſe the vent-holes, and open them where neceſſity requires. A pit after this manner, and of the before-mentioned ſize, will be five or ſix days in burning; and as it chards, the ſmoak from heavy, thick and groſs clouds will become more blue, and the whole maſs will ſink accordingly; ſo that it may be eaſily known where to ſtop and where to open, and how to govern the *ſpirables*, as the colliers call the *vent-holes*; but more properly *ſpiracles*. There are only neceſſary about three days for cooling, which the colliers haſten *(the ſpiracles, or vent-holes being ſtopt)* by taking off the outward covering with a rubber, or coal-rake; but not more than a ſuperficial yard ſquare at a time: at firſt is removed the more coarſe and groſs part, throwing the finer over the heap again, that ſo it may not cool too haſtily, nor endanger the burning all to aſhes, as probably it would do, if the whole was uncovered and expoſed to the air at once. Now ſuppoſing the whole pit to be thoroughly charded, take out the coals firſt round the bottom by undermining, ſo that the coals, duſt and rubbiſh falling and ſinking together, may the better choak and extinguiſh the fire. When ſufficiently cold, they are loaded into waggons, wains, *&c.* made for the purpoſe; and are ſorted by a rake, *&c.* The groſ-

ſer

ſer ſort is reſerved for iron-works, forges, *&c.* the middling and ſmoother ſort for wool-combers, ſtoves, chymical fires, *&c.* But for chymical fires particularly, that made from the roots is accounted the beſt, more eſpecially for reverberatory fires. As to coal for the powder-mills, 'tis generally made of *Alder*, ſometimes from *Beech*; but *Lime* and its *ſpecies* are preferable to all. They are to be ſtackt and laid on the hearth as before, being firſt diſbarked the foregoing ſeaſon, and thoroughly dried; indeed the pits are commonly ſmaller, and the top a little more flat, on which is thrown all the duſt and rubbiſh, beginning to cover at top, contrary to the foregoing example, and when you have raked up the fire in the funnel and ſtopt it, the duſt is to be drawn by degrees round the heap as it fires, 'till it comes to the bottom; all which is done in about two days.

As to ſmall-coal, it is made of the ſpray and bruſh-wood ſtript off the branches of underwood, which is bound up in bavins or bruſh-faggots for the purpoſe, although it is frequently charded without binding, when it is called *cooming it together.* This being laid on ſome neat floor, level and freed of all incumbrances, as in the hearth for charcoal, where ſetting two or three of the bavin-faggots, or ſome of the ſpray wood on fire, two men ſtand ready throwing bavin upon bavin, or ſpray upon ſpray as the laſt take fire, which makes a ſurprizing blaze; but before the fire is lighted,

lighted, large tubs are filled with water ſtanding ready, and this water is daſhed on with a ſcoop or large bowl, as ſoon as all the bavins are thrown on; by continually plying the heap in this manner, you put a ſudden ſtop to the furious blaze, and reduce the devouring flames to a glowing heat, while with a great rake, the coals are drawn and ſpread about, and water ſtill caſt on as neceſſity requires, and the coals kept perpetually turning by two men with ſhovels, much like thoſe uſed by *malſters*, while a third plies the *maſs* with water as juſt before-mentioned, and ſo proceeding 'till the fire is utterly extinguiſhed; but it ſtill contains a glowing heat. Then they are ſhovelled up into heaps, and when cold, are put into ſacks for uſe.

CHESNUT-TREE,

Thoſe from Portugal and Bayonne are accounted the beſt, and are beſt produced by ſowing; for which, let the nuts be ſpread to ſweat *(if domeſtic)* after which cover them in ſand for a month, and then plunge them in water, and thoſe that ſwim reject as naught; dry them a month and ſand them again, and try them by water as before: being thus managed, in November or beginning of ſpring, ſet or plant them like beans, and put them into holes with the point uppermoſt. They thrive beſt unremoved, for they make a ſtand for two years on every removal or tranſplanting. If they

are

are to be removed, let it be in November or February, into light or gravelly land, yet they will grow in ſand, clay, and any mixt ſoil or bleak places, on the north ſide of hills, and near marſhes and waters; they effect no compoſt but their own leaves, and of two extremities, will bear cold rather than heat, if they are ſown in a nurſery as the walnut. If you plant them in Autumn or Winter let it be in the huſk, which arms them againſt mice and other vermine. Some ſow or plant them as the acorn, and govern them as the oak, breaking up the ground in the *Winter*, and plant the nut at two feet diſtance. Coppices of Cheſnut may be greatly increaſed and thickened by layers from young branches; but thoſe that ſpring from the nut are beſt, and will thrive moſt, more eſpecially if the earth be looſened about their roots for two or three years, and the ſuperfluous branches pruned away: in order to make ſtately trees, they ſhould be ſtript up after the firſt year's removal. From the ſtem of a felled tree ariſes a cluſter of fine poles, ſo that a Cheſnut-coppice may be cut every *twelve* years; but I would adviſe noblemen and gentlemen, to plant and cultivate the true Cheſnut-tree in their *parks*, *&c.* for they are excellent food for the *deer*, and ſave a great deal of *fodder* and *provender* in the winter. *So far the true Cheſnut*; but,

There is another called the *Horſe-cheſnut*, raiſed from nuts brought from Turkey, which proſpers very

very well here, and in time makes a fine tree, and full of branches; it is green leaved, and a little notched on the edge, and in May it flowers, and after that produces a nut that deer and hogs are very fond of; but not in ſo great plenty as in its own native country. Theſe trees are highly valued in France for walks and avenues, and are more propagated here than formerly for the ſame purpoſe. For want of nuts they are here propagated by layers. I apprehend the name of the nut came from its uſefulueſs; becauſe in Turkey they are given to horſes as provender.

CISTERNS for *Water.*

By ſuch are here meant thoſe that are made under an houſe, or in a cellar, *&c.* to preſerve Water. What I ſhall here ſpeak of is the beſt and moſt common cements uſed in laying the ſtone or brick in making them, *&c.* Take quick lime with a third part of drift ſand, tempered very high with *Linſeed-oil*, and mixt with a proper quantity of *Hair*, *Tow*, or *Cotton*; or temper the above ingredients with equal parts of water and beaſt's blood. Or, being prepared of a proper quantity of clay, which is to be tempered very high, with which lay the bottom of the Ciſtern, on which lay a floor with ſtone, or brick, in mortar made of two-thirds clay, and one horſe-dung, beat to an high temper; raiſe a wall a brick in length thick, behind which lay a courſe of clay, rammed very cloſe, which is to be done as the wall is raiſed; ſo that when finiſhed, it is a

clay

clay Ciſtern lined with brick, and the brick keeping the clay moiſt, will prevent its craking (*although empty of water*) ſo that in a garden, or other place, ſuch Ciſterns may be made in the earth, and covered over, and all clear neceſſary waters may be made to drain into them. Theſe Ciſterns are very proper to hold ſwill and waſh for hogs, *&c.*

CLAY-LANDS.

Theſe are either black, blue, yellow, or white, of which the black and yellow are accounted the beſt for corn, and the worſt are the white and blue. Some Clays are more fat, and others more ſlippery; but all are much given to hold water on the ſurface (where it is apt to ſtagnate and chill the plants, corn, grain, *&c.*) and in dry ſeaſons are coſtive and binding, hardening with the ſun and wind, till their untractableneſs is made more gentle and mild by proper culture and induſtry; and ſo capable of admitting the heavenly influences in a more ſuperlative manner. The chief produce of theſe ſorts of lands as to corn, are wheat, barley, grey-peaſe, beans, *&c.* Their natural produce, as to weeds, are gooſe-graſs, large daiſies, thiſtles, bloody-dock, poppies, *&c.* Some of them will bear good clover, and rye-graſs, and yield a large ſound grain, eſpecially thoſe mixt and compounded with lime-ſtone: it is obſervable that clays hold manure better than any other ſoil, and the beſt manure is horſe-dung, or pidgeons-dung ſown in its ſeaſon upon the land when the corn is up, as in April and May; ſome ſorts of marle

do

do very well, of which are the looſening ſorts; the binding ones are by no means proper; malt-duſt ſown as pidgeons-dung, folding of ſheep, all ſorts of aſhes, chalk, ſoot, and lime upon the black, are very good.

MERCANTILE LIBRARY PHILAD

CLAYING of GROUND.

Clay is now found to be a very proper manure for ſome ſort of lands, and is practiſed with great ſucceſs in different parts of the *Kingdom* for the improvement of *Corn*. It is very proper for a light ſandy ſoil, and for a light ſoil where a ſhelvy rock lies under it, and near the ſurface, namely, it is proper for all rye-lands; on all the before-mentioned, I have known it uſed with great ſucceſs. A hundred loads are to be laid upon an acre, more or leſs, as the land is more light or otherwiſe, and is to be laid on in dry weather, as beſt. It is obſerved, that for three or four years it continues ſtill in clods upon the lands, and the land ſo manured, bears rank, ill-coloured, broad-grained barley; (*which is the moſt proper grain to be ſown at firſt*) but afterwards (*and more eſpecially when the clods are waſted*) wheat, beans, *&c.* Land ſo clayed, will hold above forty years, and on ſome ſort of land longer, and then it is to be clayed again. Light ſandy land will bear nothing elſe but rye; but by being clayed, will bear wheat, barley, peaſe, oats, *&c.* No manure whatſoever has hardly any effect upon theſe lands, even not lime itſelf; but clay, as aforeſaid, has generally a good effect upon it.

CLOVER-GRASS,

Has obtained a name, and is eſteemed one of the moſt principal ſorts of graſs; it generally produces a great crop, and when made into hay, is excellent food for cattle. A rich light land, warm and dry, is the moſt proper for it; but it will proſper on any corn-land, well manured and tilled, and alſo on old coarſe land. In the ſpring it is ſown with barley, oats, *&c.* but by later experience it is found beſt to ſow it alone about Michaelmas, becauſe the dropping of the wet, from the corn growing above it, leſſens the crop. Poor lands will not do for it, unleſs denſhired, burn-beat, limed, marled, or otherwiſe properly manured. There are ſeveral ſorts of this graſs-ſeed; but the great Clover is reckoned the beſt, the ſeed of which is like that of muſtard in ſize, but rather oblong than round, the beſt is of a greeniſh yellow, and ſome of it a little reddiſh, but the more it inclines to black, by ſo much it is the worſe. When ſown at Michaelmas, it will get a-head to preſerve itſelf from the injuries it would be otherwiſe ſubject to in winter, and in May you may cut the firſt crop, which takes up more labour than ordinary to make it into hay. If you would have it rich and good, let it not grow too ſtrong before it is cut, which muſt be when it begins to knot. It will yield two crops, and ſometimes three, if it is not eat down in the ſpring, and after all be good food for cattle in the winter,

winter, even till January. There is to be but two crops expected, if the ſeed is to be ſaved: it is ripe when it begins to change its colour, and the ſtalk dies and turns brown; the hawm or ſtalk will do very well for dry cattle in the winter, when the ſeed is thraſhed out; but if very hard, they are apt to refuſe it. Such is the property of Clover, that when it has grown two or three years, it will make the land fit to break up for corn again.

As to the graſs itſelf, one acre will feed as many cattle as four or five of common graſs; beſides the milk will be much better, more in quantity, and much richer, yielding much greater quantities of butter and cheeſe, and it fattens ſurpriſingly. Some cut it daily as it is ſpent, giving it to the cattle in racks, under trees, or in a ſhed, for they injure it much with their feet, and are apt to pull it up with their mouths, eſpecially if fed the firſt year, therefore I would adviſe, to mow it the firſt year, and feed on it the following *years*. It is not proper to let cattle, that are not uſed to this food, to eat too liberally of it at firſt; if it is eat upon the ground, an hour or two is ſufficient for them at a time, for the firſt week. I have known it, when given as other graſs, to ſwell and blow the cattle ſurpriſingly, of which ſome have died, the farmer not knowing the matter that occaſioned it, till he was better acquainted with its nature and quality. When made into hay, ſome mix ſtraw with it at firſt, whilſt others ſtint the cattle as to quantity. That gathered for ſeed, threſh out the beginning or

middle of March, as clean as may be, then dry the ſtraw in the ſun, and threſh it again, which will quite cleanſe the ſtraw, afterwards give it to dry cattle, as aforeſaid. Given as turnips, it will fatten ſwine. *(Vide Cuſtoms.)*

COPPICE or COPSE.

I ſhall under this head include the management of woods in general, as well timber, as underwood, more peculiar to coppices, it being better to bring them under one head, than make them diſtinct ones, being for the moſt part blended together.

WOODS being often a conſiderable part of ſome noblemen and gentlemen's eſtates, it would not be prudence in the ſteward to commit and entruſt the whole management of ſuch a valuable part of his *Lord's* eſtate to the diſpoſal of the *Wood-ward*, or *Wood-keeper*, as they are very ſeldom men of *reputation* and *character*, being generally only common *labourers*.

As to the firſt raiſing Coppices, *&c.* they may be done, both by ſowing and planting. When they are intended to be raiſed from maſt or ſeed, the ground being pitched upon for the purpoſe, is to be dug or ploughed as for corn, and in *Autumn* or *Spring*, a proper quantity of maſts, nuts, ſeeds, berries, *&c.* are to be ſown with any ſort of *Grain* you pleaſe. When the grain is cut, ſuppoſing it wheat, or rye, cut not the ſtubble, but leave it to ſhelter the young ſhoots the next winter, which will alſo be a ſort of manure to the ground, and though

ſeveral

ſeveral of the ſeeds may come up before the corn is cut, yet they will receive but little or no injury by it: Coppices, *&c.* may likewiſe be planted in November, of ſets in rows, but the way before-mentioned is to be preferred. If Coppices, *&c.* grow too thin, the beſt way to thicken them, is to lay them with ſome of the branches that lie neareſt to the naked places, in manner following: Give each branch to be laid a chop, but not more than half through, dig along the ground a ſpit where the branch is to be laid, open the ground to let the branch fall in, and peg it down with one or two ſtrong hooked pegs, cut two or three notches in it to make it yield the better ſpring of ſhoots: bring the mould, firſt taken from the place, over it, and it is done; and ſo proceed till all ſuch bare places are laid, which is of infinite ſervice to all poor and decayed under-woods. If all were to be ordered in this manner that wanted, it would not only be a great advantage to the owners, but a general one to the community, by having greater plenty of a commodity ſo much wanted in many, or moſt parts of the *kingdom.*

As to the cutting of Copſes, it is beſt done when they are of competent growth; and that depends a good deal upon the quality and nature of the land, ſome will be fit to be cut at twelve, others at fifteen, others at eighteen or twenty years growth *(Under-woods, above twenty year's growth, pays no* * *Tythe)* but in the north, Mr. Laurence ſays, "they

* Unleſs by preſcription.

"they are let to ſtand thirty or forty years, but "that cuſtom is by no means for the owner's in- "tereſt, becauſe upon long obſervation and ex- "perience (ſays he) I cannot find the laſt ten or "fifteen years anſwer ſo well as a quicker return "of twenty or twenty-five years growth; which "yet, if care and diligence hath been uſed, ſuffi- "ciently anſwers all the ends and purpoſes of thoſe "who purchaſe them."

In cutting up under-woods, great care ſhould be taken by the workmen that they do not haggle them at the place of amputation; neither are they to be cut too cloſe to the ground, but four or five inches above it with a ſharp *ax*, and a ſlope, and the ſtroke to be made upwards, leaving the amputation ſmooth, and by no means ſplit; by ſo doing, the wet will be thrown off, and the ſtool preſerved from rotting; but I have known under-woods cut four, five, or ſix inches above the ſurface, for *(as ſuppoſed)* a great number of times, when thoſe ſtools have grown very large, and produced but a weak ſpring, ſo that it has been found expedient to cut theſe ſtools up, which has anſwered the expectation to a wonder, for on the next cutting there has been found to be half as much more wood than on the preceding cut; but then the ſtools are to be left as before directed. *(Theſe ſtools are the wood-ward's perquiſite for chopping up.)* Let the ſtump be left higheſt in the middle, even to a point, the better to caſt off the wet; I have obſerved ſome that do them otherwiſe, leaving as it were a channel a-croſs the middle,

middle, which has been deſtructive to the beſt part of the ſtool, by taking in water, and totally extinguiſhing the beſt part.

When under-woods are cut, great care ſhould be taken to leave a ſufficient number of *ſtandels* or *ſamplers*, to grow for *ſpires*, or *timber*, twelve (*according to the ſtatute*) or ſixteen upon an acre, and thoſe handſomely trimmed up, and at proper diſtances, and in proper places, that nothing may obſtruct their growth, nor they the growth of others; but after all, the growth of Copſes are ſo various according to the nature of the ſoil, other circumſtances, *&c.* that no exact time can be preſcribed for cutting them; beſides in ſome parts of the *kingdom* there is a demand for under-wood of a greater ſize, in other parts of a leſſer, ſo that what I ſhall add, is, that the ſeaſon for cutting is from the middle of November to the end of March, and to be avoided by the middle of May at fartheſt, otherwiſe much injury may be done by the teams, in bruiſing the young cions, alſo the *bruſh* will break off boughs and ſprigs from the *ſpires* and *timber* trees.

In laying out and diſpoſing of under-woods, it is neceſſary, that the land be exactly ſurveyed and laid out into acres, roods, *&c.* according to the cuſtom of the place and country where ſuch woods lie; let each parcel be laid out parallel to the next adjoining one, *viz.* parallel to one another, taking care to view every acre, *&c.* ſeperately and diſtinctly,

ſtinctly, and to conſider its ſeveral uſes, as where there are any fine, tall, ſtrait *aſh*'s, they are the moſt proper for the cooper. In thoſe parts of the country where there are *coal-mines*, &c. Hazles are uſeful for the making of *ſkips* and *baſkets*, &c. Oak is more uſeful for *rafters*, *ſpars*, &c. in ordinary buildings, and alſo for the making of fences for quicks and young hedges, *&c.* Where under-woods run moſtly upon Oak, it may be more advantageous to let them ſtand longer than when they run more on other ſorts, the bark of the Oak being a conſiderable part of its value. (*Vide Woodward.*)

CORD *of Wood*,

Is four feet broad, eight feet long, and likewiſe four feet high. The corder, *viz.* the perſon who ſtacks it is upon oath. In thoſe parts of the kingdom where there are forges, the under-woods are cut and ſtacked in this manner for ſale.

There is alſo a ſtack of wood called a coal-fire; but of what dimenſion I cannot find out, otherwiſe than when charded it is ſuppoſed to yield a load of coals. It perhaps is what is in ſome places called a ſtack. (*Vide ſtack of wood.*)

COPY-HOLD,

Is a tenure, for which the tenant has nothing to ſhew but the *copy* of the rolls made by the ſteward of his lord's court; for the ſteward, as he

he inrolleth and maketh rememberances of all other things done in the lord's court, ſo he doth alſo of ſuch tenants as be admitted in the court, to any parcel of land or tenement belonging to the manor; and the tranſcript of this is called, *the copy of the court-roll*, which is all the tenant taketh from him, and keeps as his only evidence. This tenure is called *a baſe tenure*, becauſe he holdeth at the will of the lord. It is alſo ſaid by a great lawyer, that it is wont to be called *tenure in villenage*, and that of *copy-hold* is but a new name. Yet it is not ſimply at the will of the lord, but according to the cuſtom of the manor: ſo that if a *copy-holder* break not the cuſtom of the manor, and thereby forfeit his tenure, he ſeemeth not ſo much to ſtand at the lord's courteſy for his right, ſo as to be diſplaced at his pleaſure. Theſe cuſtoms of manors are infinite, varying in one point or other almoſt in every ſeveral manor: firſt, ſome *copy-holds* are *fineable* at will, and ſome *certain*: that which is *fineable* at will, the lord taketh at his pleaſure; but if it exceeds two years revenue, the *Chancery*, *King's-bench*, *Common-pleas* or *Exchequer*, may reduce them to reaſon. That which is *certain*, is a kind of inheritance, and called in many places *cuſtomary*; becauſe the tenant dying, and the *hold* being void, the next of blood, paying the *cuſtomary fine*, as two ſhillings for an acre, or ſuch like, may not be denied his admiſſion. Secondly, ſome *copy-holders* have by cuſtom,

tom, the wood growing upon their own land, which by law they could not have. Thirdly, *copy-holders*, ſome be ſuch as hold by the *verge*, or *rod* in ancient *demeſne*; and although they hold by *copy*, yet are they in account, a kind of *free-holders*. Some other holding by *common tenure* are *meer copy-hold*. There is alſo land held in *ancient demeſne*, which is a certain *tenure*, whereby all manors belonging to the crown in the days of Saint *Edward*, or *William the Conqueror*, were held. The numbers and names of which manors, as of all others belonging to common perſons, after a ſurvey made of them, he cauſed to be written in a book, now remaining in the Exchequer, and called *Doomſday*, and thoſe which by that book appear to have at that time belonged to the crown, and are contained under the title *terra regis* (or *king's land)* are called *ancient demeſne*. Of theſe tenants were two ſorts; one that held their lands frankly by charter, the other by copy of court-roll, or by the verge *(or red)* at the will of the lord, according to the cuſtom of the manor. The benefit of this *tenure* conſiſts: Firſt, The tenants holding by charter, cannot be impleaded out of their manor; or if they be, they may abate the writ by pleading their tenure, before or after anſwer be made. Secondly, They are free from toll for all things concerning their livelihood and huſbandry. They may not be impanelled on any inqueſt. Theſe tenants held originally, by plough-

ing

ing the king's lands, plaſhing his hedges, or ſuch like, towards the maintenance of his houſhold; for which cauſe, they had ſuch liberties granted to them: and to avoid diſturbances, they may have writs to ſuch as take duties of toll, as alſo immunity of portage, paſſage, and ſuch like.

Tenant in demeſne, is he that holdeth the demeans of a manor for a rent without ſervice.

Tenant by *copy* of *court-roll*, is the *land* that in the Saxons times was called *folk-land*.

CORN-LANDS.

The lays to be ploughed up for the ſowing of *corn* may be thus ordered; ſow the firſt crop with *white* or *black* oats, as the land is dry or moiſt; if of the lighter ſort, the next Summer fallow it, and ſow rye; but if the land be ſtrong, ſow wheat or barley, and the next or etch-crop, oats, beans, peaſe, *&c.* Where land is very rank, it is not proper to ſow wheat after a fallow, but barley, and then wheat. Some after a fallow, ſow wheat, and the next year fallow it again, and ſow it with barley, the enſuing year with peaſe, beans, *&c.* then fallow it again, and ſow it with wheat. In Suſſex, and in other places, where there are very ſtiff clays, after a fallow are ſown two crops, and then the land is laid down with clover, trefoil, and rye-graſs, in equal quantities for three years; and then lay about twenty loads of dung upon an acre; otherwiſe they *lime* or *chalk* it while it is graſs.

COURT-

COURT-BARON. *Vide* Leet.

CORN-SETTING-ENGINE,

Is the moſt uſeful and commodious *machine* uſed in the whole *branch* or *ſyſtem* of huſbandry, and ſo admirably contrived for the diſperſing of corn, grain, and pulſe, that it certainly has the preference of all others in the whole *art*; for with very little trouble it diſperſes the *grain* at what diſtance, and what proportion is deſigned, and that with great expedition, and little expence and hazard. The following deſcription of it I ſhall inſert, as it is full and eaſy to be underſtood. Firſt, let a frame of timber of about two or three inches ſquare be made, about two feet broad, and about four long, and about eighteen inches high, ſomething more or leſs, at pleaſure; this you are to place on two pair of wheels, like the wheels of a plough, whereof the axle-tree of the two foremoſt wheels muſt come to each ſide, as in other carriages, the hindermoſt axle-tree is to be iron, and ſquare in the middle, and is to be FIXT in the center of the nave of the wheels, that the axle and wheels may move together: then in the bottom, and in the middle of the frame, another inſtrument of iron, or wood pointed with iron, is to be fixt in form of a *coulter* at top, but ſomewhat ſpreading at the lower end like a *ſhare*, and put thro' two mortices at the top to ſtrengthen it; but it muſt be put in ſo as to be moveable, which

which is to be ſet higher or lower with wedges, according as you would have your furrow deeper or ſhallower; the uſe of it is only to cut the furrow. In ſhort, the point is to be only of a proper breadth, to move or force the earth to each ſide, that the corn may fall to the bottom of the furrow, firſt made by the laſt mentioned inſtrument, this done, a wooden *tube* or *pipe* is to be ſet over this *coulter* or *ſhare*, and to come from the top of the frame to the lower end of the aforeſaid *coulter* or *ſhare*, which tube or pipe is to be made taper from the upper end to the lower, the better to deliver the *corn* immediately as the earth is opened *(by the beforementioned inſtrument)* and before any earth falls into the furrow, ſo that what earth afterwards ſlips in, it may fall upon the corn. The before-mentioned pipe is to have communication with, and to proceed from a large *hopper*, fixt on the top of the frame, which is to contain about a buſhel, more or leſs, as thought moſt proper by the farmer; but that the corn may gradually deſcend according to the quantity intended to be ſown upon an acre *(but it would be neceſſary that ſome even meaſure be put in, that nothing be done by gueſs)* at the very neck of the hopper underneath, in the ſquare hollow thereof, it muſt be ſet in the edge of a wooden wheel about half an inch thick, and proportionably made to the cavity of the neck; the wheel

the wheel is to be about three inches in diameter, and fixt on an axis, extended from one ſide of the frame to the other; on which axis another wheel is to be fixt with an edge on its circumference like the wheel of a jack, which muſt anſwer another wheel of the like form fixt on the axis of the hindermoſt wheels; then fit a line *(not too ſtiff)* about theſe two wheels, that upon the motion of the machine on the hindermoſt wheels, the ſmall wheel *(by means of the line)* at the neck of the *hopper* may move alſo; which leſſer wheel muſt have a ſhort, thick piece of tough leather fixt in its circumference like the teeth of a *jack-wheel*, that upon its motion it may diſtribute the corn out of the hopper at what rate it is ſet for, or juſt ſo faſt as the guider pleaſes: for provided, it comes too faſt, by a wedge at the *tenon* of the piece whereon the *hopper* is fixt, or at the end of the axle-tree of the little wheel, like as in a (*quern* or) *hand-mill*, you force the wheel and *hopper* together; but provided it feeds too ſlow, they may ſet it at a farther diſtance by the ſame wedges. Again, provided the line be too ſlack, or too tight, either extream may be prevented, by a wedge in the place where the axle-tree of the wheel moves, otherwiſe *(as in ſome machines)* a third wheel may be made, and placed in the middle of the line to move farther or nearer as neceſſity requires. By means alſo of an iron *rod* fixt to the foremoſt axis, that is made to lock and turn upon a pin, the

engine

engine may be guided at pleaſure: the before-mentioned rod is turned crooked at the neck of the *hopper*, leſt it ſhould injure its motion.

The great convenience of this *machine* is, that a horſe and a man may work with it, and ſow as faſt, or faſter than three teams can plough: beſides, if in the ſame frame, two *coulters* or *ſhares* be fixt at a proper diſtance from each other, and two *pipes* or *tubes* out of the ſame hopper, and two ſmall wheels anſwerable as in the ſingle *one*, then a double quantity of land may be ſown in a day. In order to an equal diſtribution of the ſeed, the *engine* or machine is to be ſet in this manner; firſt, the breadth of the furrow is to be known which you intend to ſow, then by computation find how many of theſe furrows at ſuch diſtance the *inſtrument* is ſet for will be contained in an acre at ſuch a length, as alſo how much is to be ſown on an acre, theſe things being premiſed, the grain to be ſown is ſuppoſed to be divided into ſo many parts as there are to be furrows ſown, or diſtances in the ſaid acre *(this may be ſaid to be too nice.)* But ſuppoſing this done, take one or two of thoſe parts and put into the *hopper*, obſerving whether it *holds out* or *exceeds*, and accordingly proceed to rectify the feeder; as, ſuppoſing it feed too faſt, in this caſe, the wheel at the lower axis wherein the line moves, is to be made leſs than the upper; this makes the motion ſlower: by proceeding in this manner, the motion is brought to the loweſt degree;

degree; on the contrary, increaſe the wheel on the lower axis wherein the line is, and contract the other, and it will make it feed faſter: ſo that whether the ploughman drives faſter or ſlower, is the ſame thing as to its feeding and diſtributing the *corn:* as to turning at the lands end, if the hindermoſt part of the *machine* be lifted up, ſo that thoſe wheels do not touch the ground, the feeding of the *machine* ceaſes, and no corn emitted: by this method of ſowing, all the corn is buried of an equal depth, none deeper or ſhallower than. the reſt, neither is there any neceſſity of harrowing, for it is but having a piece of wood on each ſide the furrows, broad at the end ſet upon a ſlope, which will force the earth on the corn, theſe are to be fitted juſt behind the ſhare, and the tube or pipe that emits the ſeed.

Little more than half the quantity of any ſort of grain or pulſe ſown in this manner will be ſufficient, as has been proved by long experience, the *corn* not being buried too deep nor too ſhallow, nor yet in cluſters, but every way regular, and that in the very middle of the depth of mould, the ſtrength of the land being below and above the root of the *grain.* Beſides, the corn, by this way of ſowing, may be regularly covered with any rich compoſt fit for the purpoſe, ſuch as dry granulated pigeons-dung, or any other ſaline lixivian, or any other nitrous matter, fixt, or volatile, *(a fixt matter will abide ſeveral years; but a volatile matter not more than one, as in pigeons-*

pigeons-dung, &c.) Now, for rectifying the *machine*, that it does not deviate from its right courſe; the four wheels being made to lock to and fro on either ſide as in a waggon, an upright pin is to be fixt to the middle of the axis, and extended to the top of the frame, or ſomething higher, and from thence a ſmall iron rod be made to come to the hand, or within reach, with a crooked neck, which alſo muſt be juſt againſt the neck of the *hopper*, by virtue of which rod, the wheels may be lock'd and turned any ways at pleaſure.

Laſtly, ſuppoſe the land lie near either water, clay, ſand, rock, gravel, &c. ſo that in ſuch, or in any of theſe caſes, it be found not proper to ſow the *corn* in a depth of *mould* as before-mentioned; becauſe it may not have a proper depth of earth to ſtrike its root: it is but placing the *coulter* or *ſhare* of the *machine* near the ſurface of the land, ſo as only to remove the clods, and diſperſe the ſeed in rows as before, and by certain pieces of wood or iron, made flat at the end and ſloping inwards, ſet on each ſide behind the feeding *tube* or *pipe*, you will force the earth or mould over the rows of *corn* and cover it, and the corn will grow on ridges, above the ordinary level and ſurface of the land.

I have obſerved, that in the counties of Berks and Wilts, and in the *chiltern* parts of the kingdom, that *corn*, grain and *pulſe*, are ſown in the manner before-mentioned, without ſuch a *machine*,

wheel-ploughs being uſed, to which the *hopper* being fixt, after a certain number of furrows are ploughed, the *machine* is ſet to emit the ſeed; the hopper in which it is put, being placed before the coulter of the plough, ſo that the ſeed is ploughed in, and laid under the furrow; then a certain number of furrows more are ploughed, and the *machine* ſet as before, and the ſeed emitted, *&c.* till the whole piece is ploughed and ſown; but in this caſe the land is to be harrowed as when ſown the common way: it may be beſt alſo, to harrow lightly upon ſtrong land, if ſown by the *corn-ſetting engine.*

Corn, pulſe, *&c.* ſown according to the beforementioned directions may, and ſhould be *hoed* and kept clean from weeds, for, land ſo ordered, will be a more fit recipient for other grain the year following, and will longer bear the plough before it becomes foul. I need not further expatiate on this article, the thing being obvious and plain to every capacity.

CORNEL-TREE,

Is much eſteemed for the durableneſs of its wood, and is excellent for cogs, *&c.* in wheel-works, wedges, pins, *&c.* in which it wears and laſts longer than the hardeſt iron. It is beſt propagated by ſuckers planted about Candlemas. It will thrive upon any ſoil, but upon a very ſtrong clay it grows but very ſlowly.

COS-

LIBRARY MERCANTILE MILAN

COSSIS,

A kind of worms lying between the body and bark of trees, which are very prejudicial to their growth, by poiſoning, as it were, the paſſage of the ſap; but, the holes being found out where they lie, the bark is to be ſlit with a knife to let in the wet, which will force them out; when the place is clear of them, rub the inciſion over with loam-clay, *&c. They infeſt wood-lands moſt.*

COW and OX-DUNG,

Kept till old, and well digeſted, is a great improver of hot-burning lands, and more ſo if ploughed in as ſoon as laid on; but laid on crude, it breeds grubs, weeds, and trumpery, making the land become very foul. If mixt with horſe, ſwine, *&c.* dungs, is proper for any ſoil. It is likewiſe good when mixt with earth, and laid on heaps till it is old and rotten, and then laid on paſture-land, produces the white ſuckling, or trefoil, and alſo produces excellent corn, by ſpreading it juſt before the plough.

CROWS, RAVENS, *&c.*

Theſe birds are great devourers and ſpoilers of *corn*, both at ſeed-time and harveſt: beſides the common way of ſhooting them, and deſtroying their neſts, there are ſeveral devices uſed to deter them from feeding on the grain in the fields, more parti-

cularly that invented by Mr. Blithe, "You muſt "(ſays he) kill a Crow, Rook, or Raven, &c. or "two, and take them into the haunted field, and "in the moſt obvious, plain, perſpicuous places, "make a hole more than a foot over, and as much "deep, and on the higheſt ground, which hole "muſt be ſtuck round about the edges with the "longeſt feathers; the bottom covered with the "ſhorteſt, and ſome part of the carcaſs; and that "turf and earth dug out of the hole, laid upon "a round heap, is to be ſtuck round alſo with "feathers. One Crow's, &c. feathers will dreſs "two or three holes, and four or five will ſerve a "field of ten or twelve acres. Theſe feathers will "ſtand a month, unleſs they become ſooner weather-"beaten by great falls of rain." Dead Crows, &c. ſet up, alſo terrifies them, *Vide Dr. Scharrock's propagation of vegetables.*

CUSTOMARY-TENANTS,

Are ſuch Tenants as hold by the *Cuſtom* of the manor, as their ſpecial evidence. Theſe were anciently called Bondmen, or thoſe that held by *Tenura Bondagii*, or Tenant in Bondage.

D.

DEAD-TOPS,

In trees are thus occaſioned: On removal of a large plant, the top being cut off, is apt to die, from the place where the amputation was made, to the next ſprig

ſprig or branch below. In order therefore to mend this, cut off ſloping this part cloſe to the next good ſhoot, and *clay* the amputation over, as in grafting, that the head may be well grown over by ſuch *twig*, or *ſhoot*, and the wet prevented from getting into the pith, to damage the tree.

DERELICT-LANDS, or *Dearloit-Lands*,

Lands forſaken by the ſea: wherever ſuch happen, they become the property of the Crown, if the manor adjoining is in the KING's hands; otherwiſe it belongs to the Lord of ſuch manor.

DORES, or BLACK-CLOCKS,

Are a ſort of inſect, very deſtructive to all kinds of grain, while it lies dry in the earth, before it ſprouts; but when it begins to ſpring, they will no longer touch it. Their manner of proceeding is like the ant, which is to creep in at the cracks of the earth, and eat up the grain where they can find it; but theſe are no hoarders, yet great feeders, and good judges of their diet, for they always chooſe out the plumpeſt and beſt grains, and leave the worſe, which is a double loſs to the farmer. The moſt effectual method to diſperſe and deſtroy them, is, to make a great ſmoke in the corn-fields, in ſeed-time, which ſoon drives them from thence; but if this ſhould prove inſufficient, as ſometimes it has proved ſo, then immediately before the *corn* is ſown, let the land be lightly ſown with ſharp, or quick-lime, the ſmell or taſte whereof, whenever

they meet with it, either kills or diſperſes them; for upon the leaſt touch of the lime, mortality enſues.

DRAINS, *for Land.*

By Drains for land, is here likewiſe meant Draining of land. Here I ſhall only treat of ſuch as can be effected without any engine.

In Eſſex, the inhabitants have a particular way of draining land in ſuch grounds as lie below high-water and above low-water *mark*, that have land-floods, fleets, reys, rills, *&c.* running through them, which make a ſort of *creek*. Upon taking ſuch lands from the ſea, they were firſt encloſed with a bank of earth and chalk, with other ſuch binding, ſtrong materials (*as ſuits beſt with the work, and neareſt at hand*) as was done in draining Dagenham-breach, and more lately the great fen in Lincolnſhire, performed by the ingenious Mr. John Gundy, a Leiceſterſhire man; but more particularly the great fen in Yorkſhire, drained (*as I have been told*) in the reign of William and Mary, by Dutch-men brought from Holland (*from thence called the Dutch river*) which was done by a cut or channel of——miles in length, made into Holden Dike, which let in the tide from thence into this cut or channel, and which on its ebb carries away with it the water drained from off the aforeſaid fen, ſo that ſome thouſand acres of land are by this artificial river made uſeful and ſerviceable

to

to the country, and advantageous to the owners, which before were a nuiſance to both.

The manner of draining this fen, appears to be founded on theſe principles following, and likewiſe performed in the following manner. Firſt, by experiment it being found, that this fen lay nearly parallel with high-water *mark*, and that by ſinking a *cut*——feet deep, would let in a tide or flux of the ſea, and that a reflux would carry off the water before *(ſo)* let in *. Theſe things being ſelf-evident; the next ſtep taken ſeems to be, that when a cut or channel made —— feet deep as aforeſaid, would be a proper depth, on the ebb or reflux of the tide, to give the water from the adjoining lands a draught ſharp enough, to let all run in before the next flux of high water. This alſo admitting of ſelf-evident proofs as before. The next ſtep of advance certainly muſt be, to project the moſt proper method to let the ſtagnated water into this artificial channel at low-water, and to obſtruct its refluƈting back upon the land at high-water; which may be, and was performed after this manner.

From every little eminence or riſing ground, ſmall trenches, or rills, are made leading into larger, which lead the water into a main or principal *carriage*, which brings it to the bank of the channel; cloſe without which bank is ſunk a pit,

* The bottom of the river lies below high-water mark, and above low-water mark.

the bottom of which lies ſloping about ſix inches from the land ſide to the water, which ſaid pit is made a little more long than broad, and ſtrongly walled round within, with a very firm bottom, as in locks upon navigable rivers: over the top of this pit, which is equal or rather lower than the ſurface, (*and conſequently conſiderably lower than the bank of the channel*) is fixt a ſtrong frame of *oak*, in which frame is fixt upon a croſs-pin or *axle*, a ſtrong falling port, valve, or ſluice, which upon the ebb of the channel falls to a certain ſtop, and riſes itſelf backward, by which means the water runs into the pit and paſſes off; but upon the flux, or riſing of the channel, the end of the valve or port riſes, which brings the other end down, and ſhuts all cloſe, and ſo prevents the water from the channel running back, or making any excurſion upon the adjacent lands, the bank being high enough to contain the ſwell, and conſiderably above the pit as aforeſaid.

As to the method taken in *Eſſex*, &c. in draining ſuch lands as lie above low-water *mark*, is as follows: when theſe lands are firſt encloſed from the ſea, 'tis done with a bank caſt up from one ſide of the land deſigned to be taken in to the other, except ſome ſpaces left where the land floods run into the ſea: this operation is performed at once, with a ſtrong, firm head of earth, chalk, *&c.* as aforeſaid; but according to the quantity

quantity of water to be vented into the ſea, *&c.* there is laid through the bank ſquare troughs made of oak or ſome other durable wood, compoſed of four ſtrong planks of the ſame length the thickneſs the head is deſigned to be of, and at the end towards the ſea, *&c.* is fitted a falling port, which opens when the water from the land bears upon it, and ſhuts when *ſalt water*, &c. riſes.

It ſometimes happens in the inland parts of the country, that land on one ſide of a *river*, lies lower than that on the other, on which lies the back-brook (*as it is commonly called*) namely, the brook that carries off the waſte water from the *mills*, &c. ſo that the land which lies on the lower ſide has the advantage of that which lies on the upper, for that the back-brook carries off the floods alſo; when on the other ſide, the water ſtands ſtagnated for want of the like conveyance, and cannot get into the river by reaſon of its banks; in order to carry off ſuch water, in proper places, make perforations through, but under the bottom of the river (*or by diverting the ſtream to the back-brook whilſt the thing is done.*) In this perforation lay an oak *trough* made of four planks of good ſtrength (*without any port*) to let the waters off from the higher lands into the back-brook below. Theſe *troughs* are not to be made ſtraight, but with a curve, ſo that one end lies even with, or rather under the ſurface on the upper ſide to receive the water; the other end delivers

livers it near the ſurface on the lower ſide. Which trough in ſome places, is called a *fox*.

It is to be obſerved, that in ſeveral parts of the kingdom, there are a great number of acres of land which lie in ſuch a ſituation, that, though it may not be impracticable to drain them, yet the benefit ariſing from them, will by no means anſwer the coſt, ſo that the land is utterly a waſte. Therefore to render ſuch lands both ſerviceable to the owners, and to the community, it would be proper to plant them with willows, oziers, alder, *&c.* (*ſuch as would be moſt agreeable to the different ſoil of ſuch lands, for all aquatic plants do not agree with the ſame ſoil.*) So that a good return might be made of the lop, *&c.* for baſkets, ſkips, and to a great many other uſes.

DREG,

A ſort of grain called ſo in Eſſex. In Staffordſhire there is a kind of malt, made of barley and oats, which is there called dreg-malt.

DROF or DRYF-LAND,

A yearly payment formerly made by ſome tenants to their landlords, for driving their cattle through the manor to fairs and markets.

DUNGING of *Meadows*, &c.

The beſt time to do theſe and paſture-lands is in the winter ſeaſon, about January or February, that

that the rain may waſh the ſoil to the roots of the graſs before the ſun exhales its nitrous particles. After ſuch dung is ſpread with a fork, it would be proper to draw a buſh harrow over the whole, to break the clods into ſmall crumbs, the better to diſſolve them; for rushy cold land, wood-aſhes, ſea-coal aſhes (*beſt*), peat, turf, or ſuch like, is alſo very proper: the dung of pigeons, or any fowl does better here than on other lands: the ſoil taken from all hot and ſandy ſoils and laid on cold ruſhy land anſwers very well; but for meadow and paſture-land, that is light, ſandy, gravelly and hot, lime, chalk, marle, or any cold ſoil whatſoever is of ſingular uſe, as well for this as for corn land of this ſort; ſo is *urry (that is, a ſort of blue or black clay dug out of coal-mines.)* As to meadow and other grounds of a middle quality between the two before-mentioned extreams, the ordinary ſoil is beſt, and the moſt material part of good huſbandry conſiſts in a proper application of the compoſt.

DUNG-MEARS,

By theſe, I mean ſuch places where ſoils, dungs, *&c.* are mixed and digeſted for the greater improvement of huſbandry; for this purpoſe, it is beſt to make them near houſes, barns, *&c.* but more eſpecially ſeated ſo as to let all the water and drains of the farm yard into it. It is likewiſe to be made like a pit, and of ſuch ſize as to hold all the ſoil the farmer can poſſibly make, as about

ſome

ſome homeſtalls two or three will be convenient; the bottom is to be floored with *chalk*, or *clay*, that it may the better hold water or the liquid part of the ſoil, which is its very *eſſence*. Upon this pit, throw litter, dung, weeds, and all other refuſe and waſt: near, and upon it, fodder all dry and out-lying cattle, that their urine may drain into it *, wherein the greateſt richneſs conſiſts; for it is certain, the more the dung is moiſtened by urine the richer it is, for in the urine is concealed a fermenting ſalt: when ſuch pits are full, and there is not room on proper land to lay the dung, let it be carried to ſome waſte, there lay it, and cover it up cloſe with turf, *&c.* that the ſun exhale not its richneſs; the wind is alſo hurtful to all dungs. Horſe-dung being the hotteſt of all dungs (that of ſwine only excepted) is the moſt proper for cold lands, and cow-dung for hot lands; or mixt, make a good manure for all ſorts of lands. In *winter*, when the moſt rain falls, dungs ſhould be laid on heaps, which will prevent the rains waſhing out its *virtue* and *nitrous* quality. *Dung* made by *Dyers* is recommended as a proper manure for all ſorts of land, two loads being accounted ſufficient for an acre.

" WHERE DUNGS, compoſts, and moſt of " the ſeveral ſorts of manures are ſcarce, or wanting, " there is an ART to be learnt of *improving poor*

* No farm-yard ſhould have a drain laid from it, unleſs to anſwer ſome particular occaſion, and then to lead into ſome proper receiver, where ſome compoſt ought to be laid as aforeſaid.

" *land*,

" *land*, or rather of making poor land *improve it-*
" *ſelf*, without SUPER-INDUCTIONS: and
" this is an art that ſhould be highly regarded and
" minded by thoſe who want *theſe helps*, and would
" deſire to grow *wiſer* and *richer*; the whole myſte-
" ry, in ſhort, lieth in ſowing ſuch ſeeds upon *poor*
" or *worn-out land*, that by *ploughing-in* the crop
" at *Midſummer*, or by *eating* it with a number of
" *ſheep*, it will receive *riches* ſufficient to anſwer
" the huſband's hopes in tillage, without the *charge*
" and *trouble* of fetching dung from diſtant places."
Vide Laurence's Appendix to his Land-Steward, page 193.

N. B. *The improving lands in this manner, is practiſed with great ſucceſs in Norfolk and Suffolk, &c.*

E.

E A R T H.

There are ſeveral ſorts of Earth, ſome ſorts of which are of very great ſervice in the manuring and improving ſome others of a different and oppoſite quality to the Earth ſo employed; for, by a compoſition of contrarieties, a fermentation enſues, which gives a more ſpeedy germination, as well as a more ſtrong nouriſhment to ſeeds and plants, repoſited in ſuch Earths ſo compounded: as all ſorts of Earth endowed with a nitrous ſalt are fruitful, of which are ſuch as are covered with buildings, or hovels, under which cattle have leared: any kind of Earth alſo is fit for the manuring of land that has been

uſed

uſed for the folding of ſheep, as the common practice is in Flanders (*as will be ſhewn under the article of Sand.*) Black moulds in low meadows, and mud taken out of ponds and rivers, eſpecially if mixt with proper dung, are of very great ſervice in improving gravelly and ſandy *grounds*, or any dry uplands; but I muſt beg leave here to make an excurſion, and mention what ſhould have come under the article of Chalk, taken from the eminent Dr. *Scharrock's propagation of vegetables*, p. 96, as a method taken at the time of his writing, uſed in Hampſhire and Hertfordſhire, and is alſo uſed to this day, *viz.* "Chalk alſo I have ſeen uſed with very good "ſucceſs in Hampſhire, upon the Downs there, "which are of ſo dry a nature, that it is grown "proverbial there, that their ground requires a "ſhower every day in the week, and two on Sun-"day, and that in Hertfordſhire by chalk, the "greateſt improvement is made on barren, gra-"velly, and flinty lands."——Any ſort of black mould is likewiſe very advantageous to mix with lime, dung of beaſts and fowl, *&c.* or any fat ſubſtance laid on heaps, to ferment, rot, and work together, or if it be laid in any low place, where the drains of a *farm-yard* come in, it will very much inrich ſuch Earth, as to make it a great improver of paſture-grounds, *&c.* and increaſe the quantity of the ſoil: it is alſo to be remembered, that ſtreet-dirt in towns and villages is an excellent improver of all *lands, ſandy and light only excepted.* There is

ſome

ſome difficulty in judging of the quality of *land* by the colour; but a blackiſh grey ſeems to have the preference; ſome reddiſh and whitiſh Earths have been found almoſt incomparable; but ſeldom any very near white deſerves that character. The diſtinction in huſbandry, of fallow and new Earth conſiſts in this, *viz.* the firſt denotes ſuch as is unemployed, and left to recover and re-eſtabliſh its former fruitfulneſs; whereas new Earth is that which never gave nouriſhment to any plant, lying *three* feet deep, or as far as Earth lies, or elſe Earth that has been long built upon, although formerly it might have been in tillage; and likewiſe Earth of a ſandy, loamy nature, on which cattle have been a long time fed, may be accounted ſuch, and when pared and laid on large heaps, and laid ſo for a year or more, it will be rendered ſtill more capable of improving other lands of an indifferent and inferior quality.

E L M.

Of this there are four or five ſorts, and from the difference of the ſoil, and other circumſtances, ſeveral ſpurious. The common or mountain Elm, and the French Elm, are moſt worthy of *our* notice and care. The leaves of this are thicker, more florid and ſmooth than the former, delighting in a low and moiſt ground, where ſometimes they will riſe to almoſt an incredible height.

There

There are ſeveral ways and methods taken to propagate this uſeful tree, as from the mother-roots of large trees, or by taking ſuch from hedge-rows as are of a plantable ſize.

Suckers are abundantly produced from the roots of old trees, which are to be ſeparated after the earth is well looſened, and planted in November, when they will grow very well; otherwiſe fence in the ſtumps of ſuch as have been *lately* felled (*obſerve to take in as far as the roots extend*) which will furniſh you with ſtore of plants, not only for one year or two, but ſucceſſively for a *number* of years, by ſlipping them from the mother-root. Stakes of Elm, ſharpened at the end as (*and for*) hedge-ſtakes, have ſometimes taken root in moiſt grounds. Truncheons of the boughs of a competent ſize, and three or four feet long, and chopped on each ſide oppoſite, and laid in trenches ſeven or eight inches deep, and covered with good mould, have been proved, and anſwered ſurpriſingly. The moſt proper ſeaſon for doing this, is February, if the froſt does not prevent; after the firſt year, the truncheons may be cut off in as many places as thought proper, and as the ſhoots and roots direct: this is to be done on tranſplanting.

Another way is, to ſink trenches at twenty or more yards diſtance from Elms that ſtand in hedge-rows, in ſuch order and form as they are intended to grow in, and where thoſe *gutters* are, a number of young Elms will ſpring from the *ſmall roots* of the adjoining trees, which after one year or two (*with a ſharp*

a ſharp ſpade) they may be taken from their mother-roots, and ſet in the nurſery till fit to plant for timber. They will prove good, without damaging, or any ways injuring their progenitors.

Or, a young Elm may be lopt (*the lop being about three years growth*) about the end of March, or beginning of April; when the ſap begins to get into the boughs, and the buds ready to ſhoot, cut the boughs into four feet lengths, ſparing the knot where the bud ſeems to ſtrike, giving them a hack between each bud; lay theſe pieces in trenches, five or ſix inches deep, and in good mould well trod, and they will produce a crop; for the ſmalleſt ſuckers of Elm will grow, being ſet when the ſap is firſt riſing.

There is another way no leſs expeditious and ſucceſsful than either of the former, which is by baring ſome of the principal roots of a thriving tree, to within a foot of the trunk, in which place give it a chop, and in the chop put a ſmall ſtone to prevent its cloſing, which will likewiſe give acceſs to the wet; this done, cover them three or four inches thick with earth; one ſingle Elm thus managed, will be a nurſery to anſwer all common occaſions. After two or three years growth they may be ſeparated and planted in a proper place deſigned for them.

The Elm delights to grow in company, which alſo protects them from winds, and more inclines them to ſhoot in height, ſo that in forty or fifty years, it has been known, that an Elm has produced a load of timber; but this depends a good deal upon the management.

Elms, planted in nurſeries, ſometimes will riſe in ſeveral ſhoots *or heads*, let the ſtrongeſt and beſt run up for tranſplanting; but lay the other (*vide laying*) ſo that there may always be a continual ſucceſſion, and a conſtant ſupply never wanted.—— There is a ſort of Elm that bears a large harſh leaf, and grows very large, and in the *Statute-book* is called *Witch-Hazel*. The timber of this is not ſo good as that of the firſt *ſpecies*. There is no tree admits of tranſplantation ſo well as the Elm, for a tree of twenty years growth will admit of a remove. Mr. Evelyn ſays, he has removed them twice as big as a man's waiſt; but then they were totally diſbranched, the top being left only intire: they are to be taken up with as much earth as poſſible, and to have abundance of water. This is an expeditious way for noblemen and gentlemen, to plant avenues to their houſes; for being diſpoſed at thirty or forty feet diſtance, they will in a little time bear fine heads, and make ſtately *walks*. The patience of this tree for tranſplantation is evident in this, that the ſtately walks at the Eſcurial, and other places in Spain, are compoſed of Elm, which Philip II. is ſaid to have tranſplanted thither from England; no Elm being ſeen in Spain before.—The paring of the root within two or three inches of the ſtem, quite cutting off the head, and ſtrewing the pit with oats, is by no means to be allowed on. Trees for ordinary and common tranſplanting, are to be young, having

having a ſmooth, tender bark, clear of wens and all tuberous bunches, *&c.* about ten or twelve inches round, and about ſix or ſeven feet high.

Elm delights in a ſound, ſweet, and fertile land, loamy, and inclining to moiſture, and being proper for paſture; it alſo takes and ſucceeds well in a gravelly ſoil, provided there be a competent depth of mould, and it abounds with ſprings. It does not ſucceed well in dry, ſandy, or hot *lands*, no better than it does in cold and ſpungy; but in places tolerable fruitful, as Banks in mounds, and caſt out of ditches, upon ſuch the female takes delight. The Elm is the leaſt offenſive of any other tree to corn, *&c.* growing under and near its ſhade; for it naturally is inclinable to riſe more than to ſpread, unleſs it be topped to enlarge the branches, and make them ſpread, when it affords an excellent ſhade for cattle. It is alſo to be planted as ſhallow as may be, for interring of the roots too low, too commonly practiſed, is a great miſtake, and vaſtly retards the growth: keep new planted Elms moiſt, by often refreſhing them with water, otherwiſe lay litter about the ſtem, or for want of that, half-rotten fern, *&c.* the earth being firſt a little ſtirred, and hollowed, for the better reception of the rain, and dews; and they are to be carefully preſerved from *cattle*, and impetuous winds, by proper *weather ſtakes*, *&c.* when they are lopped, let it be about January, for the fire; and do it frequently, if they

are intended to run up, or you would form them into hedges or ſhades, for they may be kept plaſhed and thickened to the uppermoſt twig, as may be ſeen in perfection before the houſe of —— Juſtice, Eſq; at Sutton-Courtney, near Abington, in Berkſhire, and before ſeveral others in that *place*. When they are to be trimmed, be careful to preſerve the tops, for they defend the body of the tree from wet.

Fell Elm when the ſap is in perfect repoſe, as it commonly is in November and December; for when felled at this ſeaſon, the ſapplings will continue as long as the heart would, felled at an improper ſeaſon.

Elm is of ſingular ſervice, where is lies continually *dry*, or *wet*; but wet more particularly, for where it lies always ſo, it will abide ſeveral hundred years, and not decay. It is therefore proper for water-works, mills, ſluice-boxes, *&c.* The Dutch Elm is known at any time from the others, by its rough thick bark.

ENCLOSURES. *Vide Incloſures.*

E R S.

Bitter-vetches, a ſort of pulſe.

E S T R A Y.

A beaſt that is not wild, found within a lordſhip, and not owned; and in caſe the ſaid beaſt is cried according

according to law, in the three next neareſt market-towns, and is not claimed by the owner within a year and a day, it falls to the lord of the manor. If claimed, the owner is to pay all charges of keeping, *withing*, crying, *&c.*

ETCH-CROP.

The third crop of *corn* upon lands newly broke up; but upon other lands, in open fields, where two crops are only got between one fallow and other, it then means the ſecond crop; but where three are got before a fallow, it then means a third crop.

F.

FALDAGE,

Is an ancient privilege, which ſeveral lords of manors reſerved to themſelves, of ſetting up ſheep-folds, or pens, in any field within their manors, the better to manure them; and theſe were filled not only with their own, but alſo with their tenants ſheep, which was termed *Secta-faldæ*, and in ſome old charters, *Fold ſeca*. This *Faldage* in ſome places is called a Fold-courſe, or Free-fold.

FALLOW-FIELD,

That is, ground laid up, or that has lain untilled for a conſiderable time; on the contrary, to fallow, is to prepare land by ploughing, long before it is ploughed for ſeed; to do this twice, is to twi-fallow, and to do it thrice, is to tri-fallow. *Vide*

Ploughing up of Land. For a *Scalding Fallow*, *vide Sour-lands.*

FARDING-LAND.

In ſome places it is called a *Farding-deal*, and ſignifies the third part of a quartern of land; but originally ſignified the fourth part of an acre.

FARM,

Is the chief meſſuage, or houſe, whereunto belongs a conſiderable eſtate, let for term of life, or for a certain number of years, by leaſe, or at will. The rent reſerved on ſuch a leaſe, is ſometimes alſo called *Farm*, and the leſſee, or tenant, *Farmer.*

Fee-Farm, *viz.* Land held of another in fee, namely, for ever, to himſelf, and his heirs, for a certain yearly rent, more or leſs; as to a *half*, *third*, or *fourth* part of the value. In the *north*, a leaſe is called a Tack, in Lancaſhire, a *Ferm-holt*, and in Eſſex, a *Wike.*

FAUGH-GROUND,

Or, *Ground laying Faugh*, is that which has lain a year or more unploughed.

FELLING of TREES.

When timber-trees are arrived at their full age, perfect growth, or beſt ſtate (which commonly happens according to their various natures, different ſituation, *&c.*) or otherwiſe as neceſſity requires. The firſt thing to be conſidered, is the time of the year,

year, and other preſent advantages; only oak is to be felled from Mid-April, to Mid-May, and even till Midſummer, the ſap then being *proud*, and perfectly up, and the bark eaſy to be taken off, which is a valuable part of the produce; but all other timber is beſt felled in the winter ſeaſon, when the ſap is down, and at reſt, for the ſap being up, is apt to breed worms, and worms are the deſtruction of timber: even oak itſelf is beſt felled in the winter ſeaſon, and will *endure* much the longeſt.

It is not adviſable to fell in high winds, leſt the tree be thrown down before its time, and receive damage by ſplitting. A principal article is the diſbranching the *bole* of all ſuch branches, arms, and limbs, as may prejudice the tree in its fall: in the greater limbs a nick is to be chopped under it cloſe to the bole, then met with a *downright-ſtroke*, by this means it will be taken off without ſplitting, endangering, or hurting the timber. In caſe the ſtem is to remain in expectation of an increaſe by ſuckers, *&c.* then the tree is to be amputated as near the earth as may be; but when a total extirpation is intended, the tree is to be grubbed or ſtocked up by the roots. By ſome it is thought beſt to break the trees *(that is to lop them)* as they ſtand, and the next year to fell them. The uſual price for felling is twelvepence *per* load, and thee ſhillings a load hewing.

N. B. A load is fifty feet of *timber*.

FENCES,

It is a great neglect in a *wood-man* or *wood-ward*, to ſuffer gaps in the fences of underwoods, *&c.* by which *cattle* get in and deſtroy the young ſprings, to the no ſmall damage of the owner. The beſt fence for *woods*, *coppices*, *incloſures*, &c. is the *hawthorn*; but a great many other do well, (*Vide* Haws.) The hawthorn is raiſed of ſeed called haws, but do not riſe the firſt year, like many others. It is found by experience, that plants as big as a man's thumb, ſet almoſt perpendicular and ſingle, or at moſt a double row is ſufficient, and ſet in the row a foot aſunder, the upper row anſwering the intervals of the lower; by planting ſuch ſets in this manner, they will proſper ſurprizingly, and quite outſtrip the cloſer ranges of the common trifling ſets, which make but weak ſhoots, and the roots (*when ſo very cloſe planted*) do but hinder each other; and are to be planted upon a ditch-bank in manner following; caſt up a ditch from two to three feet deep, and the ſame in breadth (*as occaſion requires*) beginning firſt to turn the turf, upon which lay a courſe of the beſt earth to bed the *quick* in, and there depoſit the plants; from *one* to *three* in a foot (*but one fine ſtrong one is beſt as aforeſaid.*) If *foreſt* ſets, let them be freſh gathered, ſtraight, ſmooth, and well rooted, adding at *exact* equal ſpaces, as at *thirty* feet, an oak, elm, or aſh plant, which in time will be ornamental ſtandards, and make timber,

ber. (Vide *trees ſet in hedges*) If another row of ſets is intended, lay another courſe of earth upon the laſt, about *ten* or *twelve* inches thick, on which plant another row of ſets, ſo as to point juſt into the middle of the intervals of the firſt row, and cap the bank with more earth, ſo far the ſingle foſs, or ditch; but if in a place which lies much expoſed to *waſte*, do the ſame on the other ſide, of the ſame depth, and cap the top in a pyramidical form with the worſt earth: this is called the double foſs or ditch: ſome plant a row of ſets on the top; if the mould be bad, fatten it with ſome proper manure. An hedge planted in this manner is impregnable, and is an excellent cover for *game*. Upon the top is ſometimes ſet a hedge to ſhade the under plantations. Let the bank be well footed, and not made with too ſudden a ſlope or ſteepneſs, which ſubjects it to fall after froſts and wet weather. Great care is to be taken in moulding or fencing young quick hedges with a ſtrong, dry hedge, to prevent cattle from injuring them. But if the land lies high, and is ſteril, dry, and gravelly, to plant the quick-ſets on the arrea of the ſoil, is by ſome thought beſt, and is performed after the following manner. Having ſtaked, or otherwiſe marked the ground out, on which the quick-ſets are to be planted, dig or otherwiſe break the ground a full ſpit deep, and three feet and a half, or four feet broad, at ten inches ſquare, and in form of a *quincunx*, plant the ſets with a *dibble* as in planting beans,

beans, treading the mould to them: which by ſome is thought to be a better way than planting them the common way; for by that method the ground is not broke to the depth here required: be ſure cleanſe the ground of large ſtones, *&c.* and mix ſome better mould with the natural ſoil. All this is to be done before a plant or ſet is put into the ground. When planted, mound it ſufficiently on both ſides with a dead hedge, not after that indecent, ſlovenly manner commonly practiced, in throwing the bruſh on the inſide, ſo that the dew or rain falling thereon, drops on the ſets to their utter deſtruction. And now I am ſpeaking of this unſeemly, as well as abſurd cuſtom, I ſhall mention another great fault in fencing quicks, which, though it may appear trifling, yet is no leſs abſurd than the laſt mentioned; and is as I have often obſerved, at ſtiles and gate-poſts; the workman in turning the dead hedge, throws a large quantity of bruſh without the poſt over the quick *ſets*, ſo that by the droping of the ſaid bruſh, there is perhaps three *ſets* of each *table* or *row* killed, which inevitably cauſes a gap at the aforeſaid poſt, and conſequently very unſeemly, when a little thought and care would prevent it. Quicks are to be carefully weeded and cleanſed of docks, thiſtles, *&c.* and *eſpecially* before Midſummer. In Herefordſhire, and other counties where cyder is made, it is common to plant a *crab-ſtock* at every *thirty* feet diſtance, by which means the farmer is pro-

provided with all the advantages of grafting fruit, which is in thoſe counties a material article towards rent, as well as ſupplying them with a wholeſome, drinkable liquor.

Some cut the young quick down to the ground at three years growth, and find that in two years, it will ſhoot as much as in ſeven, had it been not cut. At about *ten* years growth, plaſh it about February or October, not exceeding the middle of November. Let it be done by a ſkilful *hand*, for ſome hedges have been brought to an almoſt incredible perfection by plaſhing and laying ſkillfully, as in ſome parts of Dorſetſhire, and in Devonſhire, as well as in other places; but more particularly in Scotland, where they tie the young ſhoots together with hay-bands, and make a mound ſo cloſe and compact, as to be a fence to a park, *&c.* Notwithſtanding, in the north of England, the farmers are the worſt managers of quick mounds in the three kingdoms. The time for plaſhing, as I ſaid before, is the latter end of February and March; otherwiſe the latter end of October and November; but for an old hedge, I prefer the doing it when the *ſap riſes*. As to the operation itſelf, with a very ſharp hand-bill, cut off all the ſuperfluous ſprays and ſtragglers, and ſearch out the principal or main ſtems, and with a keen hatchet, *&c.* cut them ſlant-ways *cloſe* to the *ground*, preſerving ſome of the moſt thriving and likely *ſhoots* or young *ſtems*, to lay where neceſſary, to fill up the gaps; which ſtems are to have a hack given them,

to

to make them comply to an horizontal poſture, in which form they are to be laid, ſtaking them down to the ground with ſtrong hooks, and giving each two or three hacks to make them produce a ſtronger ſpring; for between each hack ariſes young ſhoots, which greatly tends to thicken the hedge; this done, lay the reſt of the preſerved young ſtems from you, ſloping them as you go, folding in the leſſer branches that ſpring from them, and at every *four* or *five* feet diſtance (*where you find an upright ſtem*) cut off the top to the height of the intended hedge, and let it ſtand as a ſtake to fortify the work, and to receive the turnings of thoſe branches. Laſtly, at the top (*which ſhould be about four feet high*) take the longeſt and moſt flexible twigs before reſerved, and bind in the extremity of all the reſt, and the work is done: then the ditch is to be pared and ſcoured; the ſoil is taken out, is to be laid very even on the ſide of the bank, and among the cut ſtems, but ſo as not to cover the ends of any, but only the before-mentioned horizontal layers. All this being well performed, makes an impregnable mound in a few years, provided the whole is every other way well managed, as kept for the *two* or *three* firſt years clean of weeds, *&c.* Oak ſtakes are beſt for dead hedges; but in mooriſh ground, withy, aſh, maple, or hazel, will do very well, drove in at every yard diſtance, both before and after they are bound, till they have taken the hard earth. I adviſe the running a pretty ſtrong hedge on the ditch ſide, to prevent any

any incurſions of cattle, *&c.* upon the *ſpring*, which is very hurtful and injurious. Some hang *thorns* and *brambles* upon the old ſtems, to preſerve the young ſpring; but that is ſlovenly, and not ſecure, and by no means to be admitted of. In ſloping the windings, let it not be too low, ſo as to hinder the riſing of the ſap. If the plaſh be of an *extraordinary* age, wind it at the lower boughs altogether; cut the ſtems according to former directions, and ſuffer it rather to hang down a little, than riſe too much; afterward twiſt the branches into the work, leaving a ſtem free at every *yard* diſtance, beſides ſuch as will ſerve for ſtakes. When *(as it often happens in old neglected hedges)* there are large trees or ſtumps that commonly make gapes, cut them up if fit, or unthriving, and plant the gaps with quick, amongſt which plant other fit and proper young trees; but take care none of the old roots be left behind, for they will prevent their thriving. If it ſhould be found neceſſary to cut the old tree up by the *ſurface*, and not to plant, preſerve the young ſpring made by the old ſtool till the next time of cutting, as ſuppoſe *twelve* or *fifteen* years, in which time they will be grown ſtrong; then cut down all but one, which ſpare; this is to be the moſt ſtraight, and to ſtand *exactly* upon an old *ſpur*, which ſaid ſtem is of the ſame kind and quality with a new ſet plant, but has the advantage of a young one by *twelve* or *fifteen* years growth; and by growing from a fixt *root*, riſes haſtily, and ſoon becomes timber

timber (*this is not a handſome and commodious way; but a profitable one.*) But ſome very few years ago, I ſaw the reverſe of this practiſed, to the no ſmall detriment of the owners. At this time, the under agent (*the ſteward being a collecting one only*) not underſtanding what he was intruſted with, ſuffered the tenants on cutting the hedges, to carry away all before them, who like ſo many *Arabs*, left nothing but devaſtation and deſolation behind them, not ſo much as a ſingle pole being left ſtanding for *two* years together, I carefully counted what were cut down, and they amounted to no leſs than four hundred and ſixteen aſh, beſides ten of oak, with ſeveral young oak *plants*, to the no leſs than two hundred pounds damage to the injured abſent *lord*. Whereas, had the agent given publick notice to the tenants, that no one was to cut a hedge without his *inſpection*, and at the ſame time, a little reſtrained himſelf from his *diverſions*, and put a bit of *chalk* or *red-oker* in his pocket, and ſearched out the poles to be ſpared, and marked them with ſome ſignificant mark, as an X. *&c.* it would have tended greatly to the advantage of his *lord*, and his own reputation, without injuring the tenants. I mention this by way of *caution*, to all noblemen, gentlemen, bodies corporate, *&c.* to be careful in the choice of their agents, for the office of a ſteward, bailiff, *&c.* is not to be executed honeſtly, juſtly and faithfully, as a thing by the by; but requires both judgment and attendance, and

is

is by no means conſiſtent with the true *ſportſman* and the fine *gentleman*, unleſs they have proper under-agents.

Hedges may be alſo raiſed from crab-ſtocks planted as before, and nothing is more impregnable and becoming; or cyder kernels may be ſown in a *rill*, and fenced for a proper time, and the ſuperfluous ones drawn for other purpoſes.

In Devonſhire, and in the weſtern parts of Dorſetſhire, it is common to build two walls of ſtones, firſt ſetting two edge-ways, and one between, and as the work riſes, to fill the intervals or coffer with earth, to any height at pleaſure, and as the work riſes, the ſtones are beat in, ſo that they will ſtick a *century* or two; this is not only the neateſt, but the moſt durable of all other fences; but this is to be done only where there are ſtore of *flatty* ſtones; it is a very ſecure fence, and affords excellent ſhelter for cattle; upon the banks are not only planted quick-ſets, but alſo timber trees, which thrive extraordinary well, and are out of all danger.

In Cornwall, it is common to raiſe high banks, on which are planted acorns, *&c.* and as they riſe into trees their roots bind the mould faſt, and form a double, durable fence. The inhabitants there alſo make furz hedges, of which they have a better ſort than in other parts. *Vide furz.*

A tolerable fence may be alſo made of *elder*, ſet of truncheons as in planting of willow.

Great

Great care ſhould be taken to prevent black-thorns and ſhrubs from ſpreading in the *grounds*, which obſtruct the ſcythe near the hedges, and a conſiderable quantity of graſs is loſt *(whether meadow or paſture)* by that ſlovenly, and unſightly neglect. I have obſerved in ſome meadows and paſtures, that no ſmall quantity of ground is ſpoiled, and rendered almoſt uſeleſs by theſe black-thorns, *&c.* being ſuffered to ſpread themſelves, when a ſmall and inconſiderable charge would prevent the nuiſance; nay, I may venture to ſay, no charge at all, for it ſeldom happens, but the thorns and brambles will pay the expence of *ſtocking* up; then certainly there muſt ariſe a conſiderable advantage by ſuch a ſmall part of good huſbandry; Beſides, hedges ſhould be kept up almoſt perpendicular, as is done in Devonſhire, *&c.* for ſuffering hedges to hang over ſours the graſs; but keeping hedges in this manner, you thicken and ſtrengthen them, and find much advantage by this method in ſmall incloſures.

FENNY-LANDS,

Are of two ſorts, firſt, thoſe that are made ſo by up-land floods, and great rains; being of a large extent, and lying upon great levels, ſo that the water cannot get off ſo faſt as it comes on, but a great quantity of it ſtagnates, and is exhaled by the ſun beams; of this ſort is the Ottmoor in Oxford-

Oxfordſhire, *&c.* Secondly, thoſe that are conſtantly wet, in a dry ſeaſon become more ſhallow than in a wet one. In draining either of theſe ſorts of land, two things are to be conſidered; firſt the laying them abſolutely dry, which is effected by the methods laid down for the draining of *boggy-land, which may be ſeen under that head*; or ſecondly, by only diverting the land-floods, rain, *&c.* that fall upon them. The former makes a perfect cure, provided a proper draught can be gained; the latter only renders the land ſerviceable in dry ſeaſons, and leaves the leſs water for the ſun to exhale and dry up; on this ſort, it is moſt adviſable to plant aquaticks, ſuch as ozier, *&c.* You are to find by a ſpirit level, *&c.* the loweſt part of the ground, and take care to carry off the land-floods and ſtreams that way, before any further attempt be made to a thorough draining, leſt the pains and coſt prove unſucceſsful. If this be brought to bear, then let the principal drains be made wide and deep enough to carry off the water from the whole level, and as ſtraight as poſſible; conveying all the ſmall ones into the greater, and *middlemoſt*, which is a main and principal article; always keeping the ſaid drains wideſt at the mouth, and narrow as they aſcend gradually higher into the lands; which drains are to be cleanſed in Spring and Autumn from mud, weeds, *&c.*

N. B. *The hydraulicks are not here intended.*

FEARN,

Is pernicious to land, and a plant very hard to be deſtroyed and rooted out: it is diſtinguiſhed into male and female; it ſtrikes a very deep root, ſo that in ſome grounds it has been found at the depth of *ſeven* or *eight* feet. The beſt cure is, often mowing it in the Spring, while in its graſſy leaf; and at Midſummer mow it again; afterwards lay dung, aſhes, *urine*, and *that* of beaſts upon it; alſo lime, has been found very effectual for the purpoſe; all which have been found very uſeful in deſtroying of *thiſtles* alſo in paſture, meadow, and other graſs grounds. As fern and thiſtles have their *vices*, they notwithſtanding have their *virtues*, and growing on *moors* and *waſtes*, turn to ſome account, and prove ſerviceable to the poor inhabitants that live near *them*; for being *cut* when they are in their full *pride* and *bloſſom* (*as it were*) and dried a day or two, and then burnt, yield a double quantity of ſalt to any other vegetable, ſo that in ſeveral places, and more eſpecially in the *North*, they mow them, and burn them to aſhes, and make the aſhes into balls with a little water, and dry them in the ſun, and uſe them in waſhing linen, which proves near as good as ſoap; and in other parts might be ſold at an high price to the pot-aſh makers and ſoap-boilers, to the no ſmall benefit of the gatherers.

FIL-

FILBERD-HEDGE.

The filberd-tree is of three diſtinct ſorts; the *white*, the *red*, and that of Conſtantinople. They may be raiſed of nuts ſet in the ground, or ſuckers taken from the old roots: they delight in a fine, light, mellow mould, but will grow almoſt in any, eſpecially if defended from cold winds: ſome ſay, thoſe raiſed from kernels will be trees in leſs time than thoſe raiſed from off-ſets, whilſt others affirm, that ſuckers taken off with ſomething of a root will ſooneſt make an hedge. They are to be planted at about two feet and a half diſtance, and at the end of three years, they are to be cut down within three or four inches of the ground, and in about three years more, they will make an hedge *nine* or *ten* feet high; but without being cut down, would not riſe to that height under eight years. Every ſucker, and every ſhoot that puts forth, muſt be taken off within a foot of the ground, which will be a means of thickening the hedge, and filling it up quite to the bottom.

And to prevent gaps, ſome of the ſtrongeſt boughs are to be drawn in ſloping; but in a line with the middle of the hedge, and ſhould be tied with *ozier*, to an able branch of the next tree.

The hedge is to be clipt to preſerve its beauty, which is to be done by the middle of November, for by Chriſtmas all nuts bloſſom. Being thus managed, in *ſixteen* or *ſeventeen* years, a hedge

will riſe to *fifteen* feet high, and the heads at top be equal as if clipt; but in about *twenty* years, will grow thin and naked at the bottom. And if about that time ſuch hedges be plaſhed, and laid as quick hedges, they will riſe as beautiful as before, but faſter, being nouriſhed by old ſtrong roots, and are to be managed as before.

FIR,

It is eaſily raiſed from *kernels* or *nuts*, taken out of their *cones*, which is done by expoſing them to the fire a little, or in warm water, till they begin to gape, by which means they are delivered of their numerous burdens. Of this kind there are two different ſpecies, the male and the female; the male is the biggeſt, more beautiful and tapering, and the wood more firm and harder, and the leaf rougher. There is another ſort called the *Spaniſh Fir*, which bears a leaf like roſemary, with a white rib underneath, which is ſuppoſed to be the female, and is much the ſofter and whiter wood. That called the *Dram*, which comes from Norway, is long, ſtraight, clear and yellow, or more inclinable to a cedar colour, and is preferable to the white for flooring and wainſcoting. Thoſe from Pruſſia and Norway make the beſt maſts, except thoſe from New-England, which have the preference of all others. In the Highlands of Scotland, or more properly the Highlands of North-Britain, there are firs of a ſurpriſing height; but gene-

generally grow in unacceſſible places, which renders them not ſo ſerviceable as otherwiſe they would be.

Sow the ſeeds in beds in March; when they riſe, defend them with furz, or ſome ſuch like fence, for birds are apt to pull them up. The beds are to be ſheltered from the ſouth with *reed-ſcreens*, or ſome other thick fence: they are to be ſown in ſhallow rills, about half or three quarters of an inch deep, and covered with fine light mould: when they are grown three or four inches high, ſift more earth upon them, eſpecially upon *pines*, which are inclinable to ſwag. They are to be tranſplanted at two or three years growth; when they have got good root, they will make good ſhoots, but not for the firſt three or four years. They grow in moiſt, or on a barren gravel, or other poor land, if not over ſandy and light; but not on a loamy ſoil: before ſowing turn the ground up a foot deep at leaſt, ſowing or ſetting the ſeeds at four inches diſtance, and riddle ſome mould upon them: they will ſpring in about forty days. When they are to be tranſplanted, water the ground well before, and cut the clod about the root, and knead it cloſe to them: in this manner they may be moved to any diſtance; but avoid cutting or bruiſing the top of the plant, for that dwarfs them ſo, that they will never more riſe. I think there is a ſort that will either grow of ſlips or layers, laid about the latter end of Auguſt, or beginning of Septem-

ber, and are to be kept moiſt. The beſt time for tranſplanting them is in April. They will thrive almoſt on any ſoil, if not too light and rich: if the land is too light, or over rich, fill the holes with barren earth, and if the clay be too ſtiff, fill them with ſand, removing the plant with as much of the ſoil about the root as poſſible, although the *fir* will better endure a naked tranſplantation than the *pine*. They will riſe about an inch the firſt year, the next four inches, the third year perhaps two feet, and ſo proportionably; as I ſaid before, on tranſplanting *theſe* or *pine*, never diminiſh their heads, nor be buſy with the roots in cropping them; if any of the tops ſhould be bruiſed or cropt, it would be proper to ſear them with an hot iron, to prevent their bleeding. When there is a neceſſity for diſbranſhing them, let it be carefully done about March or September; when it is beſt to cut off the ſide branches cloſe to the trunk; all that are above one years growth, if ſuffered to ſtand longer will be too big, and the ſcar more apt to ſpend the tree in gum; if ſuch accident ſhould happen, cover the wounds with a mixture of clay, horſe, and cow-dung. Firs grow talleſt, planted at a near, but reaſonable diſtance; but ſuffer nothing to thrive under their ſhade. They will grow on cold, high and rocky grounds, but thoſe on the more ſouthern quarters, generally thrive moſt, and make the beſt timber: they abhor dung, neither will they bear to have the

earth

earth opened much about the roots. On ſome lands a fir will not grow for five or ſix years on tranſplanting; but after being thoroughly rooted, will riſe ſurpriſingly.

There is a ſpecies called *Spruce-fir*, which is excellent for making *eſpaliers*.

FISH, *Fiſh-ponds*, &c.

As to the nature of the ſoil for breeding Fiſh, it is hard to diſcover which or what is beſt; ſome very promiſing ponds hardly breed at all: one of the beſt ſymptoms of a breeding pond, is when there is ſtore of ruſh and graſs about it, with fine gravelly ſhoals: when waters take well to breeding, enough may ſoon be had to ſtock the ponds in a whole *county*. Eels and perch alſo are ſerviceable in keeping down a ſtock, they preying much upon the ſpawn, and breed of fiſh, will deſtroy the too great numbers in breeding ponds. Pike, perch, tench, roach, &c. are obſerved to breed almoſt in any waters, and plentifully too; but eels never in ſtanding waters, without ſprings, and if put in, are never found to increaſe; yet in ſuch ponds where there are ſprings there is no want, though none were ever put in: and what is more ſtrange, I apprehend no perſon ever ſaw the leaſt ſign of propagation in an eel, either *milt* or *ſpawn*, ſo that how they are bred and produced, as yet remains a myſtery unreſolved.

As to the method of feeding Fiſh, and the different ways of managing them, obſerve the following, *Firſt*, thirty or forty carp may be kept in a ſtew from October till March, without feeding, and by *trammels* or *flews* more may be taken in March or April, from greater waters, to recruit thoſe ſtews, where they are to be fed from that time till October again, and as conſtantly as cooped chickens are, if you would have them fat and fine. *Secondly*, this care of feeding is beſt committed to a *butler* or *gardener*, or ſome careful perſon, whoſe buſineſs is moſtly at home; but to a number of noblemen and gentlemen's houſes belong a perſon who is as it were a *ſcout*, ſome poor indigent perſon in the neighbourhood, who ſerves the hogs, poultery, pidgeons, *&c.* and fetches in fewel; ſuch an one, is the moſt proper perſon to commit the care of the Fiſh to, becauſe he is always upon the ſpot, and will not grumble at it, or think it beneath him; for regularity is required in his attendance, which will not a little conduce to their thriving. *Thirdly*, any ſort of grain boiled is good for the purpoſe, more eſpecially peaſe, and malt groſsly ground, and grains, while ſweet, is very good food; ſo alſo is chippings and raſpings of bread, and any waſte from the *table*, ſteept in the *tap-tubs*, are excellent food for *carp*; the quantity of two quarts a day, to about thirty *carp*, is ſufficient; but to give the ſame quantity twice a day, at morning and evening, is quite preferable to feeding once a day. *Fourthly*,

there

there is alſo an accidental food, no leſs valuable than the former, *viz.* when the ponds happen to receive the waſh or land floods from commons, where a number of cattle paſture, ſuch floods bringing a ſoil with them, the ponds will keep a greater number of carp than others of the ſame ſize not ſo ſituated: the dung made by cattle ſtanding in the water in hot weather, affords good nouriſhment alſo. *Fifthly*, the beſt food to fatten *pikes*, are *eels*, and without them it is not to be done, but in a longer time, as is ſmall perch. Bream is a great breeder, and therefore proper to be put into a pike pond, for the pikes are very fond of ſuch prey, ſo conſequently the bream cannot over-run the pond; roches and rouds are likewiſe good food for the pike. Pikes in all ſtreams, and carps in hungry waters, being accuſtomed to be fed, will come up and take the meat almoſt out of your hand. The moſt convenient place to feed them in, is the mouth of the pond, and at about eighteen inches deep: by this method of feeding, the deeper parts of the pond will be kept clean, and will be a proper place of retirement. There are ſeveral devices for giving them food, as peaſe upon a ſquare board let down with the peaſe upon it, by the *four corners*, from whence ſtrings come, and are faſtened to a ſtick, and ſo let down: but when Fiſh are fed in large ponds, and perhaps in large numbers, there may be ſome expence as well as trouble; but upon taking

taking them you will eaſily be convinced that the coſt and pains were not thrown away. Tench will feed as well as carp; but perch are not fit for a *ſtew* in feeding time, nor will they feed in a ſtew. With good management, Fiſh-ponds will produce about ſix pounds ten ſhillings, or ſeven pounds an acre, and the rent *per* acre is commonly about forty ſhillings, or ſomething more.

When a great water is deſigned to be made, take the firſt ſpit of ground on which the bank is to be made, as alſo the firſt ſpit over the whole bottom of the pond, and carry it to ſome convenient place, there lay it properly on large heaps *(as twenty loads on an heap)* and burn it only to a *red* aſh *(not ſo much as to reduce it to a white one)* which will prove excellent manure, either for arable or paſture land. It pays well for digging and carrying off, ſo that any of the tenants will gladly do the work ſo far *(eſpecially if they are fit to be tenants and occupiers of farms)* but let thoſe tenants have it, whoſe lands want it moſt. It may be that you may make ſtews, *&c.* all at one expence, for where clay, *&c.* is wanting, to compleat the banks, it is as well dug upon the premiſes, as dug and fetched at a far greater diſtance, ſo that the ſtews, *&c.* coſt nothing, but are ſaving of greater expences. If the ſoil about the waters is a ſwamp or mooriſh *(and the ponds made not purely for ornament)* in this caſe it would be proper to plant the ground about them

them with *ozier*, which will turn to good account. Occaſionally, *ponds* may be drained and kept dry a ſummer, at which time, and as early as poſſible, ſow the *ponds* with hay-duſt, which will afford good food for the Fiſh upon the next filling the pond, and carry a greater ſtock than they otherwiſe would do, which will hold three years or more.

As to the making and ſinking of ponds, the ſituation is to be conſidered, and the nature of the current that falls into them, whether refreſhed with a ſmall brook, or with rain-water that comes from the adjacent hills. In making ponds, let the flood-gate or ſluice have a good ſwift fall, that it may be ſoon emptied upon drawing: as to the head, the beſt and moſt approved method in making it, is to drive in three or four rows of ſtrong ſtakes, *ſix feet* long, at three or four feet diſtance, quite through the length of the head of the pond, and ram them four feet deep, that they may ſtand firm and ſure; or in caſe the bottom is found falſe, or eſpecially if it is upon a running ſand, or ſuch unſolid matter, the bottom of the head is to be ſunk about three feet below ~~the bottom~~ of the pond, ~~and to be~~ fill'd up two feet higher with *chalk* or quick-lime, which will become hard and firm as a ſtone, lining the inſide with clay, and covering the outſide with earth; then drive in more rows of ſtakes, when theſe are near filled up; and ſo proceed with clay and earth only till raiſed to its due height, always remembering to

ram

ram the head as it riſes as firm as gate-poſts are: obſerve to lay the inſide of the *dam* very ſmooth and ſtraight, the clay being well tempered to prevent any leakage that might otherwiſe happen. If the pond carry ſix feet of water, it may be ſufficient; but then the head is to be eight feet deep to receive the freſhes, *&c.* It is proper to have the ſides made with *ſholes*, for the fiſh to ſun themſelves on, and lay their ſpawn, and theſe *ſholes* laid both with *pebbles*, and any ſort of *flatty*, *ſhelvy ſtone*, not ſet faſt, but ſcattered and laid about promiſcuouſly, to ſhelter the Fiſh both in ſunning and ſpawning. There are ſeveral forms in making the inſide of *ponds*, *channels*, *&c.* of which I ſhall mention two only; firſt, ſome are made in form of an *elipſis*, *cut by an ordinate parallel to its tranverſe diameter*, and is to be proportioned according to the breadth of the *pond*; but ſome hold with a bottom more flat, and the ſides raiſed according to the following figures.

If a pond is very large, a handſome iſland, made natural, would not be amiſs, the banks of which would be a proper retirement for Fiſh. Banks of Fiſh-ponds well made, are ſure to ſtand, but if otherwiſe, nothing decays faſter. *Land-floods* and *water-ſhots* are very injurious to *pond-heads* and *banks*,

banks, which, if ſuffered to run over, will carry off the Fiſh, and waſh holes in the bank. For preventing this miſchief, there are ſeveral methods, ſome for uſe only, others for ornament and uſe too.

Firſt, grates at each end of the bank, ſet upon a level with the intended height of the water-mark.

Secondly, channels of diverſion, taken at a proper height in the current, ſo as to lead the water on either ſide the hill, or on the ſide of either hill, as the caſe is, and above the bank; by this means all the water from above may be turned at pleaſure, ſo as no freſh can endanger either head or bank. The ponds in Hyde-park are very well diſpoſed for this purpoſe, for the current that would run along the valley, is carried along by the ſide of the ponds, and may be let into any of them, or any of them may be emptied by letting them into that; but this thing, though uſeful, is unſightly, and diminiſhes much from the beauty of the land that lies about the ponds; therefore, Thirdly, where ponds are a proſpect from the manſion-houſe, and are made for ornament as well as uſe, between the head of the moſt conſpicuous and principal pond, or channel, and the foot of the next adjoining, make a ſtrong bank, according to former directions, and as ſtrongly walled with handſome and durable ſtone on both ſides, on which form a *ryalto* or *bridge*, with one, two, or more arches, as may be found ſufficient to carry off all freſhes that ſhall or may be

be communicated thither; but obſerve *(eſpecially, if a low bridge only)* to make the foot of the next lower pond, *&c.* to ſtand in the leaſt two feet in water againſt the bridge, more particularly in channels, or where any ſmall craft are intended to ride (for the greater ornament.) A perfect and beautiful *copy* of which may be ſeen in the *ſerpentine* canals, *at the Right Honourable the Earl of Halifax's, at Horton in Northamptonſhire*, where nothing made mechanically, can appear more natural than they do, the original ſource being concealed by agreeable windings among little riſing hills. Another beautiful proſpect of this ſort may be ſeen at Welford in Berkſhire, the principal ſeat of the worthy Thomas Archer, Eſq; but what I think *(if I may be allowed the expreſſion)* detracts ſomething from the natural beauty of theſe, is, their being cut ſtraight; otherwiſe, for the clearneſs and beauty of the waters are hardly to be equalled.

As to the dimenſions of ponds, no certain ones can be fixt on; a number of obſtacles and circumſtances interfering; but a pond about a third longer than broad, and from two to ten acres, circumſtances included, may be thought ſufficient, and a channel from eighteen to twenty-ſeven feet wide, or thirty at moſt, may be ſufficient alſo; but noblemen and gentlemen, whoſe ſeats are not well ſituated for water, and do not lie where they can be ſerved conveniently with Fiſh, may have it in their power to make up ſuch deficiencies,

by

by making ponds in the adjacent fields. As for the dimenſions, they are to be governed by the manner of the riſing grounds, hills, &c. for if ſteep, the bank is to be raiſed the higher, and conſequently muſt be made ſtronger, than when the ground has a gentle aſcent: in this caſe a moderate height will caſt the water over ground *enough*; there is great difference in ponds made after this manner; for in ſome places a *ten* feet bank may cover as much land as one of twenty feet may in another place; which is eaſily diſcovered by the help and aſſiſtance of a *water*, *air*, *or ſpirit* level, or for want of theſe, by a *plum-level*, for ſhort diſtances, whereby the water-line may be ſtaked out to any height, and ſo determine the height of the bank accordingly.

This has been ſucceſsfully uſed by a *gentleman* in Northamptonſhire, who by the help of this only, laid out his ponds, gardens, &c. himſelf, and theſe no mean things neither; but I ſhall here offer a level for common uſe, which is the plum-level turned *viſa verſa*, projected by myſelf, and when uſed for gardens, ponds, channels, &c. to be placed on a ball and ſocket, and ſet parallel to the horizon. It is poſſible there may be ſuch a level; but as I have not ſeen or heard of ſuch a one, I ſhall therefore for diſtinctions ſake, give it the name of the *inverted-level*, *viz.* (*the common plum-level*) turned upſide down.

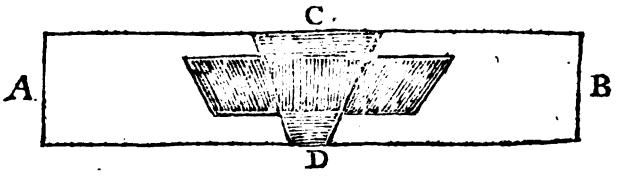
This

This level is to be made of ſome ſort of fine grained wood (*the lighter, the better*) and not ſubject to warp or caſt, and from ſix to ten or twelve feet long, *at pleaſure*. On the upper edge is to be placed two ſights, at each end one, with nothing more than two nuts of equal height, which are to have a notch cut in each of equal depth, and about a quarter of an inch broad, which is a ſight ſufficient to look through to make obſervations. Upon an adjoined piece fixt to the level, as in the common one, let a ſemi-circle be deſcribed from a center (*near the upper edge, and in the middle of the length of the level and adjoined piece*) of ſuch dimenſions as may be divided into *degrees*, and every *degree* into *ſix* other *diviſions*, ſo that every diviſion will then contain ten minutes, and every ten minutes poſſeſs a tenth of an inch; then every degree will be diſtant ſix tenths of an inch, ſo that the limb of the ſemi-circle muſt be about thirty-four inches: round the edge of the circumference is to be cut a groove for the plummet to play in, and this groove is to be cut about an inch within the edge, that nothing obſtructs its motion, ſo that from the outermoſt edge to the center where the plum-line is fixt, will be about thirty-ſix inches: a level ſo made, will anſwer the end and purpoſe of a water, air, or ſpirit-level for all ſhort diſtances, and had it teleſcope ſights, would anſwer the ſame purpoſes with thoſe in every degree. The charge without ſights will not be mere than five or ſix ſhillings, and may be made by

by a common *Carpenter*, and not be ſubject to be out of order, although uſed but once in *ſeven years*, but may be applied to practice by any common perſon.

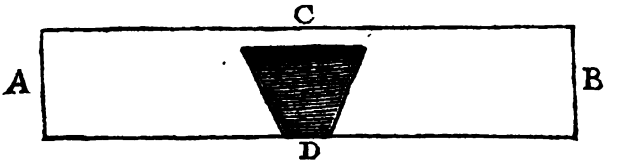
N. B. *It may be proper to have a frame to place the level in, and ſcrews to fix it in its right place and due poſition, and let the line to which the plummet is faſtened, be no more than a waxed ſilk.*

As to the ſtopping leaky pond-heads, banks, *&c.* the moſt proper method is as follows. If very leaky, the pond, *&c.* muſt be drained, and the bank cut through in the very place where it leaks, and the whole filled up with *clay*, well and cloſely rammed, which method, I ſhall repreſent by the two following figures.



Let A. B. C. D. repreſent the pond-head, *&c.* C. D. the leaky part, and C. the inſide of the head next the water. In this place cut the bank through, two feet below the bottom of the pond, wider next the water than at the other ſide, ſo that the form be like a wedge; through the middle of the bank, or rather nearer the water edge, make a cut on each ſide the other about three feet over, and as long and low as before; let it be cut as rough and uneven as poſſible, to

make the old and new the better and more firmly adhere together, then fill all up with clay well rammed, either with that which was thrown out, or, if found neceſſary, other fetched for the purpoſe. When the head is not very bad, it may be ſtopt, according to the following figure.



In this caſe the pond need not be drained, the bank not being cut to the water edge; and it may anſwer very well, when the leak or ſew lies pretty high.

As to fiſhing for *carriage*, that is, when fiſh are to be moved ſeveral miles diſtant from the *ponds* from whence they are taken, let it be done in the winter ſeaſon, *viz.* from October to March, and in cold weather; but always obſerve this rule, *viz.* not to handle, batter, or any ways bruiſe the fiſh, for in ſuch caſe they will not thrive upon removing ſo well as otherwiſe. As ſoon as the *pond* is drawn, immediately take the fiſh with hoop-nets fixed to poles, not taking more than three or four at a time before the net is emptied, otherwiſe they may bruiſe each other by ſtruggling, which will hinder their growth and thriving, and perhaps coſt ſome their lives. If occaſion requires their being kept ſome time out of water,

water, let it be upon the graſs, and in the ſhade, for heat is the greateſt enemy to the life of fiſh out of water. The beſt veſſel for conveyance is a ton, whoſe capacity is four hogſheads; this is the beſt veſſel for carriage twenty or thirty miles, otherwiſe hogſheads may do, but great care muſt be taken they are not crowded. Three hundred ſmall carp may be put into a ton, and ſo in proportion to other *veſſels*. Fill every *veſſel* about two thirds with clear pond water, and then put in the fiſh; let there be a vent at the bottom of the *veſſel* to let off what is foul, and that freſh water may occaſionally be poured in. When the Fiſh are arrived at the place that was intended, pour a few of them at a time into a hoop-net, and forthwith put them into their deſigned abode. Some put them up in baſkets, hampers, *&c.* ſtowing them with graſs between, others ſtow them with dry wheat ſtraw; but neither of theſe is near ſo good as water, let the diſtance be what it will; for theſe cleaving to the ſlime of the Fiſh, rub off the ſcales, which being loſt, a carp hardly ever thrives afterwards. It is poſſible (*if the remove is not too great*) moſt of the Fiſh may live, yet for the beforementioned reaſons they will hardly ever proſper afterward: carp ſhould never be ſuffered to lie in graſs, ſtraw, *&c.* upon any account whatſoever; but kept continually in water, to preſerve them from bruiſes, and looſing their ſlime.

GREAT-FROSTS, and of long continuance, are very deſtructive to Fiſh, more eſpecially to thoſe in *moats* and other ſmall ſtanding and ſhallow waters, but, where there is either current or ſpring, Fiſh ſeldom die with froſt; a hard winter ſucceeding a very dry ſummer, the Fiſh then ſuffer moſt. If *ponds* be large and deep, though they be not fed with any current moving through them, only on floods and rains, yet the Fiſh in ſuch ponds will ſtand a very hard and long froſt; which is owing to the great plenty of water; ſuch waters are therefore to be looked upon as a *ſanctuary* or proper *aſylum* for ſecuring Fiſh in the greateſt extremities; for all put in there, although through a hole made in the ice, will live without any hazard. The moſt certain ſymptom of mortality in Fiſh (*and eſpecially in froſts*) is their ſhewing themſelves; which if in the leaſt perceived, a concluſion is eaſily drawn, that all are ſickly, and without a ſudden thaw, that water will not preſerve them long; for by an inſtinct in nature, all Fiſh, *in cold weather*, lie as cloſe and deep as they poſſibly can, ſo that nothing but approaches of death can make them ſtir. It is alſo neceſſary to break holes in the ice, and keep them open, otherwiſe they will riſe and ſtick to it, and ſo be faſt froze thereto: if there be holes, they may be ſeen to move about them, as if they came to air themſelves. When it is a long and hard froſt, and the health of the

the Fiſh is ſuſpected, a tryal may be made by *breaking* holes in different parts of the *waters*, ſome towards the middle, others nearer the ſides, which may be done after about *ten* days freezing; and by the appearing, or otherwiſe, of the Fiſh, their condition and temper may be known: watch them narrowly, and if they appear, prepare all *hands* to take them out as near as poſſible, for what are taken out may be ſaved; but what remain in, in all probability will be loſt.

The moſt effectual expedient to ſave Fiſh in ſuch danger, and in ſo deſperate a condition, is to ſet great open veſſels full of water not far from a fire, and as faſt as the Fiſh are catched, to put them into theſe veſſels, from whence they may be conveyed in baſkets to greater waters, where holes are to be made through the ice to put them in, otherwiſe they may be kept in tubs, freſhening the water every twelve hours, and a little food offered them, and upon the froſt breaking may be delivered again to their former waters. Fiſh may be kept in this manner a month or five weeks, and with good management, longer. I will here inſert a remarkable paragraph taken from an *honourable* author.

" Sometimes Fiſh *(ſays he)* have been to all ap-
" pearance dead, others frozen and envelopt in ice,
" yet by this method I have preſerved them; for
" heating water, and putting it into a *fat (a great*
" *tub)* till I brought the water there to a Mid-

" ſummer heat; I then put ſuch Fiſh in, with " their ſhells of ice upon them, and in ſix or " ſeven hours, the ice was gone, and the Fiſh " alive and well; and ſo I delivered them to my " greater waters, as briſk as ever." In ſmall waters is the greater danger from froſt, ſo that thoſe that have great as well as ſmall ones, it might be neceſſary to ſtock ſuch ſmall waters from the greater, only for their ſummer food, which may be done in February, and delivered to the greater waters again the latter end of November, and ſo all hazard of froſt be prevented; or provided they are ventured one winter, two ſummers growth is got, which if of a tolerable ſize when put in, they will by this time be fit for the table.

N. B. In winter, Fiſh neither feed, nor attain to any conſiderable growth.

FISH-GARTH,

Is a wear or dam in a river, for the greater conveniency and better taking of Fiſh.

FISH-SHELLS,

Theſe are very good manure, and great improvers of land; more eſpecially ſuch as is ſour and cold; thoſe broken by the ſurges of the ſea are beſt, as they are immediately fit for uſe; where ſea-ſand is uſed as manure, the fuller of ſhells it is, by ſo much it is ſaid to be the better: if ſhells are not broken by caſualty, they are to be broken by

by iron ſtampers, *&c.* but the moſt expeditious and beſt way is to calcine them a little, but not ſo much as for lime; only juſt ſo much heat given them as may cauſe them to moulder and fall with rain and froſt; otherwiſe (*eſpecially oyſter-ſhells*) are a long time before they diſſolve; but theſe particularly are good, for theſe ſhells are nothing but ſalt as it were congealed into ſuch a form; laid on land whole, they do little good for the firſt three years, but afterwards are the greateſt of improvers.

FLAX,

This is a valuable commodity, and turns to good account. It will thrive on any ſound land, but that is beſt which has lain long fallow. In order therefore to prepare it for bearing a crop, let it be well plough'd, laid flat and even, and ſown in a warm ſeaſon about the middle of March, Lady-day, or beginning of April; if a wet ſeaſon enſues it will want weeding. The beſt ſeed comes from Holland and other parts eaſtward, which is dearer than the Engliſh ſeed, but at length proves cheaper, laſting two or three crops very well, after which it is to be renewed again. Two buſhels of the beſt ſeed will ſerve an acre; but of Engliſh ſeed there muſt be ſown two and a half or more, for it produces a ſmaller ſtalk. It ſhould be ſown on good ſound land, and when come to maturity, care muſt be taken that it ſtands not till it is over ripe, which is eaſily known by the ſeed; when ready, get

all neceſſary help, pluck it, and tie it up in *bundles*, or rather *handfuls*. Flax pulled in the BLOOM makes the beſt commodity, proving whiter and ſtronger than if left ſtanding till the ſeed is ripe; but in this caſe, the ſeed is loſt. An acre of flax is worth from ſeven to twelve pounds, and ſometimes more.

As to the pulling of *Hemp* and *Flax*, which is the *term* for gathering them, it is to be pulled up by the roots, and not to be cut as *corn* is with a *ſcythe*, *hook*, *ſickle*, &c. and the beſt time to do it in, is as before directed, or when the leaf declines and falls downward, or turns yellow at the top, for then it is full ripe, and this generally happens about the latter end of July. This method is intended for ſuch as is to make cloth; but if you intend any for ſeed, you muſt reſerve the principal *buns* for that purpoſe: as ſoon as hemp and flax are pulled, lay them flat and thin upon the ground for a day and night, and then tie them up in bails, as it is called, ſetting them upright till they may be conveniently carried to the water, which ſhould be as ſpeedily as may be: ſome indeed, that raiſe but little, ripen it upon the ground, by letting it lie there to receive the dew and rains, but this is hazardous.

As to watering; the beſt place for this uſe is a running ſtream, and the worſt a ſtanding pit; but hemp is accounted a ſort of poiſonous plant, infecting the water wherein it is laid, and hurtful to fiſh,

fiſh, it is therefore adviſeable to uſe ſuch ditches and pools where theſe inconveniencies cannot be felt, unleſs there be near ſome broad and ſwift ſtreams, in the ſhallows of which this may be done without danger: take the manner of doing it as follows; according to the quantity, four or five ſtrong ſtakes are to be drove into the bottom, ſetting them in a ſquare, then lay the bails or bundles of hemp, *&c.* under water, the thick end one way, and a thin one on it, *viz.* lay one end reverſe to the other, ſetting bail upon bail in this manner, till all is laid in, and the water covers all over; this done, take ſome indifferent large wood-poles, and bind them a-croſs the ſtakes to keep the *Hemp* down, eſpecially at the four corners. Then with ſtones, gravel, or ſome other weights laid on, preſs the *Hemp* cloſe, that it may by no means riſe, and ſo let it lie in the water *four days and nights*, if a running ſtream, but *a day and night more*, if a ſtanding water; at which time take a *bail* out and waſh it; in which operation, if the leaf comes off, 'tis a ſure ſign it is ſufficiently done; but leſs time will do for *Flax*, which will ſhed its leaf in three days and nights. But take notice, though Hemp may be carried to water a *night* or two after pulling, yet the Flax is not to be uſed ſo, for this is to be ſet up, dried and withered for a week or more to ripen the ſeed; when done, it is to be rippled over with a comb called a ripple, which takes off the bells or bobs that

that contain the ſeed, which is to be reſerved for uſe; when this is done, it is to be watered as before directed.

As to waſhing, when it is watered according to former directions, unlooſe the ſtakes, waſh every *bait* ſeparately, and very clean, not leaving a leaf behind, nor any thing elſe in it, then ſet it upright to drain; this done, carry it home, and in ſome open ground ſet it upright againſt a wall, hedge, poles, *&c.* where it may ſufficiently enjoy the ſun, *&c.* and when thoroughly dry, houſe it; but ſome others, as ſoon as the *Hemp* is brought from the water, lay it upon the ground flat and thin for *a week or more*, turning it every two days, and afterwards ſet it up, and when thoroughly dry, houſe it. Being ordered according to the before-mentioned directions, it is fit for the *market*.

FLOORING,

By which I here mean only thoſe earthen floors that are made in *little cottages*, and particularly in *malt-houſes*. Take one third part lime, one third of coal-aſhes well ſifted, and one third of loamy clay and horſe-dung made from graſs, theſe two laſt of equal quantities: *if either is wanting of its proportion, let it be the aſhes.* Mix the whole according to art, and temper it well; lay it on a heap, and let it reſt about *ten* days, in which time it will mellow and digeſt, then temper it well over again, and be not too liberal of water, but bring

bring it to a proper conſiſtency by labour, of which you cannot be too laviſh; after this heap it again for three or four days more, and then temper it very high, till it becomes tough and glewy: this done, and the ground (*or other place whereon it is to be laid*) being ready, lay it on as thick as occaſion requires, often treading and beating it with a *beater*; but if for the upper floor of a *malt-houſe*, it is to be ſpread on with a trowel only, and ſuffered to dry ſlowly to prevent cracking; but if it ſhould chance to fly a little, it is to be kneaded down with the hands, wetted with a little ſkim'd milk. There is a another ſort more cheap and ordinary, which if well wrought is very durable: take loamy clay, with one third of new ſoft horſe-dung made from graſs, with a ſmall quantity of coal-aſhes; temper it, and proceed as before directed.

FOLDING of SHEEP,

It is very improper to fold them in very wet weather, for if the land is of a binding nature, by their treading and battering it, it makes it become very ſtiff and hard, ſo that it rather injures than mends it. And as the urine of the ſheep is a principal manure, rather more ſo than their dung, it is proper for the *Shepherd* to let them ſtand to ſtale after he has raiſed them, before he turns them out of the pen, which if they do not readily, let him walk round the *pen* with his *dog*, for

for upon ſight of *him*, they will *ſtale* immediately.

FOSSILS,

Are all bodies whatſoever dug out of the earth, as coal, oars, *&c.*

FOULDAGE,

In Norfolk, *&c.* it means the liberty of *penning* and *folding* ſheep.

FRAMPOLE-FENCE,

A privilege enjoyed by the tenants of *the Right Honourable Lord* Petre of Writtle in Eſſex, which is, to have the wood growing on the fence, and as many *trees* and *poles* as a man can reach from the top of the ditch with the *helve* of his ax: this is an allowance for the repairing of the fence.

FREE-BENCH,

Signifies that eſtate in copy-hold lands, which the wife being eſpouſed a virgin, hath after the deceaſe of her huſband, for her dower, according to the cuſtom of the Manor, as at Orleton in the county of Hereford; the relict of a copy-hold tenant is admitted to her *Free-bench*, that is, to all her huſband's copy-hold lands, during her life, at the next court after her huſband's death. It is cuſtomary in ſome cities and franchiſes, for the wife to have her huſband's whole lands, *&c.* for her dower.

Of

Of the *Free-bench*, inſtances we have in ſeveral manors, as at Eaſt and Weſt-Enbourn in the county of Berks *(the manors of the Right Honourable Lord* Craven) if a cuſtomary tenant die, the widow ſhall have her *Free-bench* in all his *copy-hold* lands; but if ſhe commit incontinency, ſhe ſhall forfeit her eſtate. Yet if ſhe will come into the court riding backward on a black ram, with his tail in her hand, and ſay the words following, the ſteward is bound by the cuſtom of the manor, to re-admit her to her *Free-bench*.

Here I am,
Riding upon a black ram,
Like a whore as I am;
And for my Crincum Crancum,
Have loſt my Binkum Bankum,
And for my tail's game,
Have done this worldly ſhame,
Therefore I pray you Mr. Steward, let me have my land again.

The like cuſtom is in the manor of Chadleworth in the ſame county; in that of Torre in Devonſhire, and other Parts of the Weſt. *Vide Cowel's Law Dictionary.*

FREEHOLD,

Is that land which a man holdeth in fee, fee-tail, or at leaſt for term of life. In *the terms of the*

the law 'tis ſaid, that *free-hold* is of two ſorts, *free-hold in deed*, and *free-hold in law*: *free-hold in deed*, is the real poſſeſſion of land or *tenements* in fee, fee-tail, or for life. Free-hold in law, is a right that a man hath to ſuch land or *tenements* before his entry or ſeizure. It hath likewiſe been extended to thoſe offices which a man holdeth, either in fee, or for term of life. *Briton* defines it to this effect, *frank-tenement* is a poſſeſſion of the ſoil, or ſervices iſſuing out of the ſoil, which a freeman holdeth in fee to him and his heirs, or at leaſt for the term of his life, though the ſoil be charged with free, or other ſervices. *Freehold* is ſometimes taken in oppoſition to villenage. Lambard in his explication of Saxon words, ſaith, that land in the Saxons time was called either *boc-land*, that is, holden by book or writing, or *folc-land*, that is, holden without writing. The former he reports was held with far better condition, and by the better ſort of tenants, as noblemen and gentlemen, being ſuch as now we call freehold. The latter was commonly in the poſſeſſion of clowns, being what we now call, *at the will of the lord*. But the meaning of *folc-land* in general, is, the land of the vulgar people, who had no eſtate therein, but held the ſame under ſuch rents and ſervices as were accuſtomed or agreed upon, at the will only of their lord, the thane, and it was therefore not put in writing, but accounted *ignoble*.

FUEL,

FUEL, or FEWEL,

Is any ſort of materials that will burn or keep up fire. As to wood for fuel; in the felling it, it is uſual to begin with the *underwood* firſt. It is common to fell or cut *underwood* from Martinmas to Holy-rood; but oak, as ſoon as it will ſtrip, though not after May; as to aſh, the ſeaſon is from Martinmas to Lady-day. In caſe the *heads* or *tops* of trees are taken off for firing, it is proper to begin three or four feet above the timber, if conſiderable and valuable; but in wind-ſhook trees and hedge-rows, they ſhould be ſtript to near the top, becauſe generally they are full of boughs, and it is proper to top ſuch as are perceived to decay at the head, or ſuch as are intended for *pollards*; let the former be cut off a conſiderable way beneath the decayed place, for an amputation made in the quick part will prevent a further decay, and will prevent decaying trees from becoming worſe. Trees intended to ſtand for timber, on loping, make the amputation nine or twelve inches from the *bole* or body, that the timber receive no damage.

There is a common received opinion, that fuel cut down when the ſap is up never burns well, and theſe people ſtack ſuch out of doors, to take all winds and weather to waſh and dry out the ſap, and make it more fit for the fire. I have known this practiſed by perſons of *(otherwiſe)* good

good underſtanding; but ſuch people are moſt groſly deceived; for every rational perſon knows, that the ſap in a tree is the ſame thing in effect as the juices in the animal body, and that ſuch juices afford ſtrength and nouriſhment to it. For inſtance, it is very uncommon to ſee a Jew or French-man look ſo *freſh* and *florid* as an Engliſhman, *&c.* which is owing to eating their meat over-dreſſed (*according to a learned phyſician*) whereby the juices are exhauſted, and ſo conſequently the eaters are thereby deprived of the more nutrative part of their food; the ſame thing will alſo hold good in the vegetable kingdom. And the thing has been experimentally proved, that any kind of wood for *fuel*, cut at the riſing of the ſap, *cleft up* and ſtack'd within doors, and ſo thoroughly dried, has burnt with great ſtrength, hardly inferior to *coals*, and would alſo bear the fire much longer than that dried otherwiſe: it being well known that fire does not prey upon all *things* and *bodies* alike; ſome it devours greedily, other ſome withſtand it longer ere they are devoured by it.

N. B. It has been alſo proved, that wood ſtack'd out of doors, and kept there long, when laid on the fire will *burn* ſo very weak, that a joint of meat (*as has been proved*) has taken a third part more of this wood to *roaſt* it, than it has when roaſted with wood ſtack'd up green, and under a roof; but old *foreſt pollards*, *&c.* that prove red-wood, may be ſtack'd without doors a year, the

the *juices* of theſe being of a quite different quality from that of the others before-mentioned.

FURENDAL, or *Fardingdeal*,

Of land, ſignifies the fourth part of an acre, and in Wiltſhire it is the common name for a rood of land. And in ſome places, it is called a *Furthendale*, and in other places, it ſignifies the fourth part of a quartern of land, as in ſome others, it ſignifies two gallons of corn, or the fourth part of a buſhel.

FURROW,

A trench or drain, either made or left by a plough, or by ſome other means: alſo a ridge or ſwelling on the ſide of a tree.

FURZ,

Theſe are proper to make mounds on ſuch ſharp, ſtony, light and heathy lands, on which thorns, *&c.* will not grow. They may be ſown in a nurſery, or on any poor light land in drills, and at two years growth, they will be fit to be tranſplanted; but the better way is to plough up the ground where the mound is intended to be made, and to lay it very fine, and then ſow the ſeed, but not very thick, unleſs ſome are intended to be drawn, which are to be fenced, and kept clean from weeds; and in a few years they will make an impenetrable mound; but ſuch mounds are not to

be made narrower than a perch broad; and they will afford excellent cover for game, as well as good fuel; and when they are to be cut up, the beſt method is to cut half the breadth firſt, and when that is grown ſtrong, to cut the remaining part; ſo that it will ſtand in need of very little fencing: ſheep indeed are very greedy devourers of it, ſo that it may be proper to keep them from it for two or three years, when they will not be able to hurt it: but when furz are to be planted from a nurſery, obſerve to lay the ground as fine and hollow towards the bank as poſſible, that the roots may have liberty to ſtrike backwards, and not to founder againſt the hard, ſolid earth; and after two years growth they are to be cut ſloping, that the top of every ſtem may have room to ſpread, which thickens the mound, and prevents its dying at the bottom. The French, the Devonſhire and Cornwal ſort is very good. Furz of one years growth mixt with ſtraw (*hay better*) cut into chaff by an engine, makes very good food for horſes.

G.

GARTH,

In the North of England, ſignifies a yard or back-ſide, a little cloſe or homeſtead: it alſo ſignifies any ſmall parcel of land; alſo a wear, dam, or ſtank in a river for the catching of fiſh: as a garth-man, one who owns or occupies ſuch garth, *&c.*

GLUE,

GLUE,

By glue is not here meant the common ſort, which is known to every houſe *carpenter*, but a ſort that far exceeds it, for this will ſtand all weathers and other accidents, and as it is a thing known but to *few*, and may be ſerviceable to *many*, I ſhall give it a place here.

Take fiſh-glue, that is, the beſt iſing-glaſs, a ſufficient quantity, cut it into ſmall bits (*being firſt well bruiſed in a mortar*) and pour thereon common ſtrong ſpirits of wine, which muſt over top it *five* or *ſix* inches; let this ſtand cloſe covered to digeſt *ten* or *twelve* days, then boil them gently together, continually ſtirring it to prevent its burning; boil it till the glue and liquor is well incorporated (*except a few ſtrings which will not diſſolve*) whilſt hot; ſtrain it through a coarſe linen cloth into a proper veſſel, where it is to be kept cloſe ſtopt. This will melt with a very gentle heat into a fine tranſparent liquor, and any thing joined with this glue, will rather break in the firm wood than in the joint united by this compoſition. Spirits added to common glue, greatly ſtrengthens it.

GOATS,

Are a ſpecies of cattle that will not only feed, but live and grow fat with feeding on furz, briers, brambles, thorns, broom, ling, *&c.* and affect hills rather than lower grounds. It has been com-

plain'd of as a great neglect in this *kingdom* in not propagating more this uſeful and valuable creature. An eminent and learned author argues after the following manner. " *Says he*, here in " England are *thouſands* of acres of land unim- " proveable, as upon black and white blowing " ſands that bear nothing but heath, *&c.* and will " hardly keep any creature alive: yet ſuch land " ſtock'd with goats would turn to conſiderable " account: they paying for keeping, if only for " their ſkins and tallow, for if the he goats are " gelt and made weathers, their ſkins would be " much better, and yield double the quantity of " tallow they otherwiſe would, as it has been " known a weather goat has yielded ſixteen pounds " or more, which is worth no leſs than *four-pence* " *per* pound, (*it being more valuable than deer ſuet*) " and the green ſkin a ſhilling more; ſo that the " ſkin and tallow upon an average will be worth " from *four* to *five* ſhillings, beſides the fleſh, " which is as good as veniſon, and by ſome ac- " counted preferable to it, eſpecially the *kids* and " *weathers*, and if more eaten, would be account- " ed ſo. An acre of ſuch land as Windſor-fo- " reſt is, would keep *four* or *five* goats, which " would produce fifteen ſhillings without their " fleſh, and with it double the ſum, without " which advantage, an acre would not be worth " *eighteen-pence*: beſides the ſkins are uſeful, be- " ing as tough and as neat wear as *buck* and *doe*,

" and

" and are when dreſſed, fit for breeches, ſhoes for " women, vellum, plats for maps, &c. and when " tann'd, is what is called Turkey and Spaniſh lea- " ther and cordivant, and the little we have here " tann'd with ſhumach, makes fine ſtout leather, " and a valuable commodity." Theſe creatures bring forth two, and ſometimes three kids at once; ſo that their increaſe is almoſt paſt belief (*caſualties excepted*) if mathematical demonſtration did not enforce it, as appears by the computation in the following table, which to ſave myſelf the trouble of calculating, I borrowed from an eminent and learned author.

She Goats.	Ewe Kids.	Wea- thers.	Sum Total.	Years.	Years.	Years.	Years.
25	25	25	75	1			
50	50	50	175	2	1		
100	100	100	375	3	2	1	
200	200	200	775	4	3	2	1
400	400	400	1575	5	4	3	2
800	800	800	3175	6	5	4	3
1600	1600	1600	6375	7	6	5	4
3200	3200	3200	13175	8	7	6	5
6400	6400	6400	25575	9	8	7	6
12800	12800	12800	51175	10	9	8	7
25600	25600	25600	102375	11	10	9	8
51200	51200	51200	204775	12	11	10	9
102400	102400	102400	409575	13	12	11	10
204800	204800	204800	819175	14	13	12	11
409600	409600	409600	1638375	15	14	13	12

The above table is calculated for their bringing two at a time only, and thoſe but once a year, whereby it is plainly demonſtrated, that if a perſon begins but with 25 ſhe goats, and with a pair of young ones only to each, the increaſe in eleven years amounts to 102375, of which 25600 are ſhe goats, 25600 are ewe kids, and 25600 are for weather kids, according to the table; but provided a perſon begins with 50, with each a pair of young, the ſame number is produced in 10 years, if with a 100, *&c.* the ſame number is produced in 9 years. If with 200 and their young, the ſame number is produced in 8 years, as appears by the table. For the firſt year of each account anſwers to 25, 50, 100, and 200, in the firſt column of the table, and by adding of 25 and 50, and 25 and 100, and 50 and 100, and 25, 50 and 100, is found the increaſe of 75, 125, 150, and 175, for any number of years within the table. As to their diſtempers *(except in ſome very few particulars)* they are the ſame with thoſe of ſheep.

GOUTY-LAND,

As it is in ſome places called, is mooriſh, cold, or black-land: this ſort of land is to be ordered in the ſame manner as *heathy-land*, only this is to be burnt deeper a great deal; and then it will very ſeldom bear any thing but oats, white oats upon the lighter coloured, and black oats upon the blacker.

The

The turf of theſe lands pared deep, burnt and carried upon *rye* and *barley* lands, is accounted a better manure than dung.

GRANARY,

A place where corn is kept when threſhed, from all vermin that would injure or ſpoil it. There are alſo ſeveral methods for the keeping corn, grain, *&c.* from injuries unthreſhed. The common method of keeping it in the ſtraw, is to ſet it up in ſtacks after the following manner. Firſt, ſet up a frame of timber of three, *&c.* poſts of a ſide at proper diſtances, both as to length and breadth, handſomely framed and pin'd together: theſe poſts are bound round or covered ten or twelve inches deep, and about eighteen inches from the top with *latten* tin to prevent rats, mice, *&c.* from getting into the grain, *&c.* but Dutch or Plymouth tiles would anſwer the purpoſe better, theſe being not ſubject to acquire ruſt as the other will.

Another method, and I think preferable to the former, (*as ſtanding lower*) is to raiſe ſtone ſupporters, pillars or columns, about three feet high, and about two ſquare at bottom, and about twelve or fourteen inches at the top, on which is to be laid a round cap, covering or entablature of ſtone, about twenty or twenty-two inches diameter at bottom next to the pillar or column, and about ſixteen or eighteen inches at

top, and ſix or ſeven thick, ſo that theſe coverings, caps, *&c.* repreſent the fruſtum of a cone, or rather that of a *parabolic* conoid: theſe pillars may be ſet round or ſquare: if to ſet ſtacks of corn on, a circular form is preferable, as practiſed commonly in Buckinghamſhire; *&c.* corn-ſtacks, *&c.* made after this manner, or ſquare, admit of being thatcht quite round; and when made round, from the bottom to the eaves, they will repreſent the fruſtum of a cone ſet upon its leſſer baſe, and the upper part will repreſent a cone itſelf; but when made ſquare from the bottom to the eaves, they will repreſent the fruſtum of a pyramid ſet upon its leſſer baſe, and the upper part will repreſent a compleat pyramid. Such ſtacks thatcht round, beſt ſecures them from winds and weather; but then, here ariſes an objection; which is, that ſuch ſtacks muſt be taken all down at once, of what ſize ſoever they be; but when made in an oblong form, *or that of a long ſquare*, any particular part may be taken down at once without injuring the remainder: but where the farms are large, and admit of ſeveral ſtately ſtacks, I notwithſtanding think the round and ſquare preferable. Such ſtacks (*if made large*) are to have pillars, *&c.* ſet in the middle, the better to ſupport them.

On ſuch ſtone pillars may be ſet roof'd buildings of any ſize, the ſides being boarded, in which may be ſecurely laid in proper apartments, corn thraſhed or unthraſhed, as in other ordinary and common buildings; but great care is to be taken, that

that no ladder, *&c.* is left ſtanding againſt ſuch places to let in mice, *&c.* When a quantity of corn (*wheat eſpecially*) is thraſht, and intended to be kept a longer time, than it would keep laid upon a floor, *&c.* the beſt way is, in harveſt, on making a wheat ſtack, after it is raiſed three or four feet, to lay a quantity of this thraſht corn in the middle looſe, and then to lay two or three courſes of ſheaves, and after that another quantity of corn as before, and ſo proceed S. S. S. or lay upon lay, 'till all is laid in.

There was a certain yeoman in Northamptonſhire, that kept a ſtack of wheat ſo ſet up ſix and twenty years, it being ſet up in 1731, and not taken down till the year 1757, when it was clear of all vermin, and proved exceeding good, and was much ſought after by bakers to mix with newer and weaker grain.

N. B. This grain proved more advantageous to the baker than to the ſeller; for corn kept to a great age, takes in great quantities of water to make the dough flexible, and fit to be converted into bread, and it could hardly be brought into a proper temper alone; but by mixing it with a proper quantity of newer grain, hardly any can be found to equal it.

GRANGE,

Is an houſe with barns, ſtables, granaries, ſtalls, *&c.* to which belong a farm. In ſhort, it includes every thing belonging to a farm.

H.

H.

HARIOT, HARRIOT or HERRIOT,

As the word now implies, is the beſt beaſt a tenant hath at his death, due to the lord by cuſtom, be it horſe, ox, *&c.* and in ſome manors, the beſt piece of plate, jewel or other beſt goods. There is *Hariot-ſervice*, and *Hariot-cuſtom*. Hariot after the death of a tenant for life, is Hariot-cuſtom. Hariot after the death of a tenant in fee-ſimple, is Hariot-ſervice. For this the Lord ſhall deſtrain, but for the other he ſhall ſeize.

HASEL or HASLE,

A well known nut-tree. It is beſt raiſed from the nuts ſowed like *maſt* in a pretty deep furrow, about the end of February. Light ground may be immediately ſown and harrowed in; but provided the ground is clay, or otherwiſe *ſtrong*, plow it more early, that it may be well mellowed by the froſt. In the third year cut the ſhoots near the ground, let the amputation be made with a ſharp bill without any haggling. Where a pleaſure-grove is deſigned, plant in *foſſes* at about four feet diſtance; cut the plants within *five* or *ſix* inches of the earth, dreſſing them for *two* or *three* Springs and Autumns, and looſening the mould a little about the roots. If planted from ſhoots, take thoſe of the thriving ſort, of the ſize of ſmall wands, and ſuch as have drawn ſeveral hairy twigs, which

which by no means cut off, nor yet the roots, unleſs wiſely and ſparingly; a coppice being planted in Autumn, may be cut within *three* or *four* inches of the ground the Spring following, which the new riſing cions will repair in cluſters and tufts; ſome think it better to let them ſtand two years before they are cut down, which may then be done cloſe to the earth, the weaker eſpecially. Filberts are to be treated in the ſame manner, and both may be improved by tranſplanting. They affect cold, barren, dry and ſandy grounds and mountains, but not thoſe that are damp and moſſy. Such coppices may be felled at twelve years growth, univerſals being premiſed.

HAWS,

A ſort of berry, the fruit of the white-thorn ſhrub, alſo a little croft or cloſe near a houſe; as a bean-haw, a hemp-haw, *&c.* but in the North, it ſignifies a green plot of ground in a valley.

As to the management of Haws for the raiſing of quick-ſets, take the following method. Gather the Haws being full ripe, and in a hole dug for the purpoſe, bury *five* or *ſix* buſhels till the Autumn following, ſo that they lie in the ground a whole year, which diſſolves the pulp, and leaves the kernels bare. (*But ſome hold it beſt, not to ſow them till the next Spring.*) They delight in a mellow ground, which is to be dug pretty deep, and laid clean in ſmall ridges, leaving about fifteen or ſixteen inches between each ridge, for the greater con-

conveniency of weeding, hoeing, *&c.* Some in *two*, others in *three* years, according to the quality of the ſoil, will be fit to be tranſplanted for uſe.

Theſe quite out-ſtrip the miſhapen ſtunted ones gathered in the fields, and will make a mound *two* or *three* years ſooner than thoſe.

HAYWARD,

Formerly ſignified a perſon that kept the common herd of the town; but now ſignifies a perſon that ſees that one man's cattle do not treſpaſs upon another man's land to ſpoil his crop, *&c.* on catching them, he is to drive them to the *pound*, where they are to remain till they are replevy'd, or the owner pay a certain ſmall acknowledgment for ſuch treſpaſs to the Hayward. This officer is returnable, and ſworn at the Lord's court.

HAZELY, or BRICK-EARTH,

Found in ſeveral parts of the kingdom, more particularly in Eſſex, and is produced of a kind of loam, very much like red clay, only in quality different; for what rain ſoever falls upon this, ſinks through the whole *ſtratum* immediately; it alſo has no ſtones in it: whereas all clays hold the water that falls upon them, till the ſun and air dry it up; and after rain with froſt moulder into duſt; beſides, clays have generally ſtones mixt with them. The beſt product of theſe ſorts of lands as to *corn*, is rye, barley, white oats, wheat, buckwheat, turnips and peaſe; but they require great quan-

quantities of dung. Its natural produce is broom-fern, ſour quitch-graſs, and almoſt all ſorts of other pernicious weeds. As to artificial graſſes, it will bear clover and ray-graſs, but will not hold more than two crops. The beſt manure for this ſort of land is marl, chalk, clay, and ſea-coal aſhes, and ſuch things as gives tenacity. And this ſort of earth is excellent manure for clay-lands. It is very proper to be laid upon any other ſort of ſoil contrary to itſelf.

HEATH,

Is a ſort of wild ſhrub, as likewiſe a plain covered with it. As to heathy-land, it is common for the farmers in Kent, to cut up the heath in May, and when dry to burn it, reſerving the aſhes; then to plough up the turf with a broad finned plough, and burn it as ſoon as tolerably dry; and mingling theſe aſhes with lime and ſea-ſand, to ſpread them, and lay a conſiderable quantity of dung over all. About the end of September, the land is ſown with wheat, and ſo continued for *three years*, and the fourth ſown barley, being firſt folded with ſheep, and generally three years more with oats, and the year following with peaſe, and after this it will generally bear good graſs for ſome years more. In Staffordſhire, the heath is ſtockt up in Summer and burnt, mixing the aſhes with lime, allowing about ſixteen quarters of this compoſition to an acre, which is ploughed under furrow about the end of September, or ſomething later;

later; when it is ſown with rye, there muſt be allowed about two buſhels to an acre, which commonly produces about twenty-five: after rye is ſown barley, next white-peaſe, after that oats, and then laid down for graſs.

HEDGES.

By Hedges, I here mean only dead Hedges, for the fencing of quick mounds and ſmall gardens, and other ſmall plats of land near houſes; *&c.* and I would have theſe made more decent, handſome, and more durable than thoſe done after the common ſlovenly manner practiſed in moſt places I have ſeen; and therefore I will here give a ſpecimen of what I have obſerved near Oxford, and the Downs of Berks and Wilts; Firſt, near Oxford, where dead Hedges, are a mound to the before-mentioned *places*, they are made of *black-thorns* after the following manner: a trench is made about ſix inches ſquare along the middle, into which are driven upright ſtraight *oak* or *black-thorn* ſtakes at about *two feet and a half* or *three feet* diſtance, then a wad, *&c.* of the beſt thorns are ſet upright in the trench of ſuch thickneſs as to cover both ſides of the ſtakes (*if long enough for the intended height of the hedge the better*) if not, another WAD of the weaker ſort are joined and ſlipt between the tops of the other, one by one or ſingly (*not thrigh in at a venture as the ſlovenly way is*) then with hazel-rods (*oak better*) bind the thorns together *three* or *four* inches below the top of the

ſtakes

ſtakes in the joined part with a double *wale*, in the ſame manner as the top of hazel hurdles are bound; and about *eighteen* inches higher, a light ſingle one is run along the hedge, and ſo proceeds from ſtake to ſtake till all his finiſhed, not forgetting to ram the earth well into the trench on both ſides to faſten the bottom: after all, with a fine light keen hand-bill, with upright ſtrokes, cut off all looſe ſtraggling ſprigs, which will bring the whole to a perfect ſmoothneſs. A Hedge well and exquiſitely made after this manner, the wood being cut in its proper ſeaſon, will ſtand in many places ſeven, and in ſome other nine or ten years, for here the wood ſtands perpendicular, and all the wet runs immediately off without lodging. I have ſeen hedges thus performed look as well as pales, nay better than ordinary ones.

As to the other ſort of dead Hedges, which I have obſerved on the Downs in Berks and Wilts, they are made with ſtraight upright ſtakes, driven into the ground with a *maul*, *&c.* and then wrought with trimm'd *oak* and *hazel* rods, much after the manner that common hurdles are made; which takes a little more time than the common ſlovenly way, but then this is ſaved in the quantity of wood: theſe *hurdle Hedges* ſo made *(thin of wood)* dry immediately and ſtand as long as the Oxfordſhire Hedges, a new one not being wanted every *three* years. The uſe of this laſt ſort is only to part *ſeveral lands* from thoſe *common* or *arable*, when ſmall parcels are occaſionally taken in for ſome particular

lar uſe, and will only prevent cattle treſpaſſing: the others prevent incurſions of every minute animal. *Weather* ſtakes may be ſet to either of theſe hedges as occaſion requires.

HEMP,

Is a valuable as well as uſeful commodity, not only for making of *halters*, but for ſeveral other uſeful purpoſes, and if more propagated would be of great advantage to thoſe who raiſe it, and a general one to the whole community. It delights in a warm and ſandy or ſomewhat gravelly ſoil ſo it be rich and deep; a cold clayey wet and moorish ſoil does not at all agree with it, and it has one peculiar good property belonging to it, that is, it will effectually kill and deſtroy all weeds growing on the land whereon it is ſown. The beſt ſeed is that which is brighteſt and holds its colour and ſubſtance in rubbing. About three buſhels will ſow an acre; but the richer the land ſo much the thicker it is to be ſown, the poorer, the thinner. The time of ſowing is April, or as the Spring falls out (*more early or late*) great care is to be taken to preſerve the ſeed from birds, who are great devourers of it. About Lammas is the firſt ſeaſon for gathering it, when a good part will be ripe; that is the light ſummer-hemp, this bears no ſeed, and is commonly called *Fimble-hemp*, when this hemp is ripe, the ſtalks grow white, and the leaves fall downwards, and turn yellow at top, at which time it is to be pulled, dried and laid

laid up for uſe. On pulling this up, great care muſt be taken not to break that left ſtanding, becauſe that is to grow 'till about Michaelmas, about which time it will be ripe, and this is commonly called *Karl-hemp*. When it is gathered and bound up in bundles, it is to be ſtackt or houſed 'till the ſeed is thraſhed out. The *Hemp* harveſt coming in after that of corn, is of great ſervice to the poor, and affords them work in the winter; and was Hemp and Flax more propagated, it would greatly help the poor of this nation. There is room for ſuch propagation, as there is a great demand for it, and great quantities are bought and brought over from our good neighbours, thoſe precious covenanters, the Dutch.

As to the manner of *watering*, *waſhing*, *&c.* *vide Flax.*

HIGHWAYS.

By Highways, I do not mean public or Turnpike-Roads, but ſuch common Highways or Roads as come under the inſpection and care of the ſurveyors of every pariſh. I ſhall not mention any ſtatute or act of parliament relating to the mending ſuch Highways, for every ſurveyor that can read is undoubtedly acquainted with theſe things as well as myſelf, and he that can read is qualified for ſuch office. I ſhall therefore only give ſome directions for the better diſpoſing of the materials, labour and money allowed by ſuch ſtatutes and acts. As,

When a Highway or Road is become bad through long neglect, and no neighbouring gentlemen ſo kind as to preſent it in order to have it bettered; it is neceſſary, firſt to plough it (*if not too full of ſtones and rubbiſh*) laying it as high as poſſible in the middle; If this is not practicable, let the rubbiſh lying near and at the outſides be peckt and dug up and thrown into the middle, where it is to lie till well ſettled, then in all flats, falls and rills either make a ſmall ford with hard ſtones pitcht an end and well ſet; or otherwiſe by raiſing the level a little, make a perforation from a foot to two feet wide, as occaſion requires; ſo as to be large enough to carry off all water that ſhall drain thither; and take care it be well covered with large broad ſtones, over which lay other proper materials, firſt larger ſtones, then ſmaller, *&c.* and over all gravel: and after the ſides of the Highway are thrown into the middle, lay large ſtones pretty regular (*if pitcht near on edge the better*) and on theſe lay ſmaller, and cover all with gravel, if to be had, if not chippings of ſtones or other ſmall rubbiſh, ſo that the whole may lie two feet thick at leaſt, and by no means pinch the way in breadth. If it is a way much uſed by carriages, make it wide enough for to meet loaded, eſpecially in ſome particular places: let all (*if poſſible*) be done in dry weather; for this adds a good deal to the work; becauſe not only more may be done, but more to the purpoſe.

The

The teams, labourers, and materials in a pariſh, with a ſmall levy properly applied will perform wonders: and thoſe pariſhes that are deſirous of good *roads*, it would be proper they ſhould mend a piece perfectly well one year, the next year another piece, *&c.* till the whole is finiſhed; for although a piece not toucht the ſame year, may ſtand in great need of ſome help, yet if poſſible, let it ſlip 'till its turn comes. When once a road is perfectly mended, the charge is quite trifling to keep it ſo, the greater expence is ſoon repaid, and the greater expence at firſt, in a few years will be found to be the leaſt; beſides, the pleaſure of having a galloping road in the Winter, which perhaps before was hardly paſſable in the Summer, but in ſome places the *land* is a deep clay, and no *ſtones* near at hand. In *theſe* places, it would be proper to lay the *roads* large and wide, and to keep them very high in the middle, laying ſome black-thorns under in the worſt places, and procuring ſome ſtones, though at ſome diſtance, to make good perforations at any *rill*, &c. to carry off the water that would otherwiſe ſtagnate. Near theſe, and all other *roads*, keep the hedges well cut, and the ditches well ſcoured, to let them receive the benefit of the ſunbeams.

In repairing lanes that lie level, or nearly ſo, make the highway in the middle; but if the ground lies higher on one ſide than the other, repair the higheſt, and by no means the loweſt, for the highway being made on the upper ſide, will

keep itſelf dry by draining on the lower, and ſo into the ditch; but obſerve not to make it ſo near the upper ditch as to tread into it. If made on the lower ſide, it can hardly ever be made good, unleſs the ground has a proper deſcent, to let the water off the highway at a *rill* or *rills* that croſs ſuch lane: if there are not ſuch, it is almoſt impoſſible to keep it ſound and perfect; beſides, half the materials will make it good on the upper ſide, that will hardly make it paſſable on the lower. An highway that lies with a proper deſcent, and is bad, if ſome adjacent ſpring, or other conſtant running water, was turned down it (*and ſo that it can clean run off with a quick draught after it has done its office*) it effectually mends it.

I ſaw this done with great ſucceſs a mile in length, upon a road that leads into, and through a market town in the Weſt of England.

In highways, where carriages ſeldom meet, I know an ingenious farmer, that mends them in the following manner.

There being but one track, he cauſes ſtones to be gathered on his adjacent lands (*breaks the larger*) and drops them into the *ruts*; but not ſo as to fill them up, and lays more of the ſame in the *padway*, and lets off the water at every *rill* and *watercourſe*, ſo by an inconſiderable charge, he keeps his *highways* conſtantly good.

In all gate-ways in incloſures, whether common ways or private ones, let there be ſufficient ſtone per-

perforations made, and well covered with *rubbiſh*, and where ſtones are not eaſy to be had, let them be made of green elm, willow, ſallow, oak, or for want of theſe, ſome other ſort of hollow trees, or ſhells of ſuch trees, and let the earth be well ramm'd to them, and laid high to throw the water off above, as well as to let it paſs beneath; for by keeping theſe places good and clear, as well as all highways, a great many accidents are prevented, which have too often happened otherwiſe.

H O G,

In the mid-land and north parts of this kingdom, a young weather-ſheep is called by this name; but I hereby mean, that domeſtic creature which goes by the general name of *Hog* throughout the whole kingdom.

Hogs whilſt lean, feed upon ſuch things as are uſeleſs to moſt other creatures, ſo that keeping of them muſt be very advantageous to the *farmer*. They are brought on conſiderably in fleſh alſo, with *haws*, *hyps*, *ſloes*, *crabs*, refuſe *potatoes*, *oak* and *beech-maſt*. And it is cuſtomary in moſt parts of the kingdom, where there are *foreſts*, *chaces*, *woods*, &c. for the inhabitants within the *verges*, to turn their Hogs into ſuch places to *maſt* in that ſeaſon of the year; but in a great many places a fooliſh cuſtom prevails which is, that of turning their Hogs to graſs the beginning of May, to

graze in the open field upon common graſs, as their horned-cattle do, and hire a ſwine-herd to attend them. They go out about ſeven o'clock in the morning, and return about the ſame hour in the evening, when the *Swine-herd (contrary to all other keepers of cattle)* is not at the trouble of attending them home, for the poor creatures being kept from their more natural food than *common graſs* for the time above-mentioned, become very much hunger-bit, running home with a moſt hideous cry, almoſt drowning the ſound of the *ſwine-herd's* boy, ſent before with an horn to give notice to their owners to put *ſwill* in the troughs againſt theſe hungry *gueſts* come in. I obſerved when I was in thoſe parts where this cuſtom prevails, that upon the ſound of the horn in the evening, the children at play in the ſtreets made for covert; for a ſow that has been *ſuckt* and *drawn* all day at graſs by *ten* or a *dozen* pigs, muſt have a pretty keen appetite at ſupper, and I have often thought it providential that a child was never *worried* by theſe rapacious creatures; but however, the pariſhes where this old (*nay, I may ſay barbarous*) cuſtom prevails, are within the *verge* or *ring* of *foreſt*, &c. ſo that in the *maſt* ſeaſon, theſe *hogs* going into the *woods* get in better condition, and with ſome additional helps, are made fit for the knife, and killed in the enſuing ſeaſon, when the *Swine-herd* claims a *tail-chine*, a certain number of joints up the back, as a perquiſite added to his head-money.

In

In ſome parts of Northampton and Leiceſterſhires, the farmers ſet a conſiderable part of their beans (*which are a very large ſort*) in the fields, always obſerving to ſet the *reek* near ſome convenient place for water, and ſoon after Michaelmas put their hogs to theſe *reeks*, and once a week take the ſtraw which is trampled under foot, and hang it on the hedge that incloſes the reek, and there dry it, and then thraſh out the remaining beans, and give them to the *Hogs*, and ſo proceed 'till the *reek* is eaten up. The farmers in theſe places affirm, that beans ſo given to the *Hogs*, will feed and fatten them more than the ſame quantity would, given the more decent and common way.

I do not pretend to determine this point, but leave it to the judicious *farmer*. All that I ſhall add is, that this way of feeding Hogs makes the beſt manure in the kingdom, for bean-ſtraw is full of a ſtrong nitrous ſalt (*as every ſoap-boiler very well knows*) and hog-dung the ſame, and much more ſo when fed on ſuch food as is the more pure and nitrous part of that ſalt, which when laid together and meliorated, muſt certainly produce the richeſt manure that can be ſuperinducted.

I have alſo obſerved in the counties of Berks and Wilts, that it is common there to put their *Hogs* to clover, more eſpecially thoſe intended for pork only, by *ſtaking* out a ſmall quantity at a time, according to the number of head intended

to be fed upon it; ſo that by giving it to them freſh and clean (*in the ſame manner as turnips are given to ſheep*) it brings them on in fleſh ſurprizingly; ſo that with a few *beans*, *vetches*, *grey-peas*, &c. added, they are ſoon made fit for the knife; but theſe are quite a different ſort of *ſwine* to the former, being more naturally fond of vegetable food, as they are, as I was informed, in Wiltſhire, a ſpecies of the wild kind of Barbadoes, and that this breed was ſent by a *gentleman* from thence, to a relation at Axford, near Marlborough in Wilts, from whence (*in thoſe parts*) it is called the Axford breed. The colour of theſe hogs are red, and red ſpotted with black.

HOG-DUNG,

Is accounted one of the better ſorts of dungs, one load being as good as two of ſome others. It is excellently good both for corn and graſs, eſpecially the latter, and for any ſort of land, and the beſt of all dungs for trees, ſo that a great many farmers prefer it before any other manure they make: it is therefore proper to increaſe the ſoil, by throwing good quantities of ſhort bean-ſtraw, and all ſorts of green refuſe from the garden, &c. into the hog-yard, theſe things will raiſe the heap ſurprizingly. In ſhort, there is no ſort of trumpery, but a hog will browſe and convert into ſoil, ſo that where a conſiderable number are kept, by the above management, ſixty or ſeventy loads of ſoil may be made in a year from the hog-cote.

HOLLY,

HOLLY,

Is a ſhrub that is preferable to all our home bred ever-greens, either for uſe, defence or ornament, and cares not a ruſh for weather, beaſts or hedge-breakers: there are two ſorts, the prickly and ſmooth-leaved, called *Free-holly*, which cattle are inclinable to crop when young and tender. (*I ſhall take no notice of the garden-holly variegated.*) Holly is to be raiſed of the berries when ripe and ready to fall: bury them as the haw, and take them up at the ſame time: others waſh them from their mucilage, and dry them thoroughly, and keep them 'till the following Spring, which is the proper time for ſowing them; when they have ſprung, keep them free from weeds, and after they have grown two years, ſtir the earth a little about them, and about the fourth year the plants will be fit to draw and plant out; they delight in a reddiſh light or flinty, and chalky ſoil; if reduced and kept for hedges, they make excellent ones, and impenetrable mounds for incloſures; ſet the plants in the ground in a moiſt ſeaſon, rather in the Spring, than early in the Autumn. When it is hot and ſcorching weather, ſhade them a little till they have took the ground, and in ſharp weather and eaſtern winds, ſcreen them alſo. When a plant ſeems to decline or periſh, cut it off cloſe to the ground, and it will ſoon recover. In planting, the bigger the ſets are the better, and

time

time muſt bring this tree to perfection, being no more haſty in riſing than the oak; ſtirring the mould a little and often about the roots haſtens its growth; but it abhors nothing more than dung. Holly may alſo be raiſed by laying down well rooted plants, ſets, &c. three or four feet in length, ſtripping off the roots and branches; and being covered with a competent depth of earth, it will ſend forth vaſt numbers of ſuckers; ſo by planting ſets at a competent diſtance on the top of a ditch, a hedge may ſoon be formed. The timber is the whiteſt of all hard woods. It makes excellent pulley-blocks, wheels and pins, and no wood is preferable to it, where friction is required.

HOLM,

A ſort of oak. It alſo ſignifies a ſmall iſland or fenny ground, compaſſed about with little brooks, &c. But a place ſo called not lying or ſituate near ſuch waters, ſignifies an hill or cliff.

HOLT,

A wood or grove.

HOME-STALL,

A farm-houſe, with barns, ſtables, yard, orchard, &c. adjoining; if any cloſe adjoin, it is commonly diſtinguiſhed by the name of a home, or home-ſtall cloſe.

HOOK-

HOOK-LAND, or OPE-LAND,

Land ploughed and ſowed every year. In the Vale of White-horſe in Berkſhire, it is called *every years land.*

HOPS,

Are chiefly uſed by *Brewers* and *Dyers.* They are a very valuable commodity, and ſhould be more propagated in the kingdom than they are (*though they are more of late years than formerly*) ſome years ago we were obliged to import hops from Flanders, to make up our own growth. This plant delights in the richeſt and beſt land, of a light but deep mould, and better if a mixture of ſand, alſo a black garden mould is excellent; but moſt ſorts of land will do except ſtony, rocky, and a ſtiff clay. Land a little upon a ſouth declivity, the ground mellow and deep, and a conſtant ſupply of water all Summer, is quite convenient and compleat; but for want of ſuch conveniencies, and a *Hop-ground* is determined on, if the land be cold, ſtiff, ſour, or barren; it is beſt to burn-beat it about September, which makes a great improvement; but let the ground be in what condition it will, it muſt be tilled at the beginning of winter, either with the plough or ſpade: as to planting, ſome do it in ſquares of *chequer-work*, which is moſt convenient in large grounds, which are to be ploughed between the hills

hills with horſes; but where the ground is intended to be dreſſed and tilled by the ſpade, a *quincunx* is moſt proper and better for the *Hop*, *(vide beans)* but in either way, pitch or ſet up a ſmall ſtick at every place where a hill is intended to be raiſed; in caſe the ground be poor and ſtiff, procure ſome rich mould, or dung and earth mixt, and bring it upon the *ground*, and at each ſtick dig a hole a foot ſquare, and fill it with the mould or compoſt ſo brought in, wherein the plants are to be ſet: in dry and burning land, the diſtance of the hills may be about ſix feet; but in moiſt, deep and rich mould which brings and produces a large *hop*, they need not be above eight or nine feet diſtance, and ſo in proportion to the quality of the land.

The moſt proper time for planting is October, before the approach of winter, when the plants will have time to ſettle before ſpring. The largeſt ſets are to be preferred, and thoſe about eight or ten inches long, having three or four joints in each plant, for which holes are to be made ready before they are taken out of the ground; at each corner of the before-mentioned holes of a foot ſquare ſet a plant, and it is proper to raiſe the earth two or three inches round about them; but if planting is deferred 'till the green ſprigs are *ſhot*, then they are to be entirely covered, otherwiſe there is danger of killing them. If the *Hops* be old and worn out, dig about them the beginning of winter, and take away

as

as much of the old barren earth as poſſible, and fill up its place with the beſt mould or compoſt before-mentioned; this is to be done before February at fartheſt: but if the *Hops* be ſtrong and in good heart, manuring and pruning is proper to reſtrain and keep them from a too early ſpring, and riſing too ſoon, which is often found prejudicial to them, eſpecially when March proves unkind. In dreſſing, the hills are to be pulled down, and the mould thrown back upon the plants, 'till you come near the principal roots; then take the upper and younger roots in your hand and ſhake off the earth, and by means of a little tool put underneath, you will diſcern where the new roots grow out of the old ſets: in doing this, take care of hurting the old ſets; as to the new roots, they are to be taken away with a ſharp tool fit for the purpoſe, except ſuch as are intended for ſets. No more of them muſt be uncovered than the tops of the old ſets in the firſt year of cutting, and whatever time the hills are cut down, the roots are not to be cut 'till March. At the firſt dreſſing, all ſuch roots or ſprigs as grew the year before out of the ſets, are to be cut off and taken away within an inch of the ſame, and ſo yearly every year after, they are to be cut as cloſe as poſſible to the old root; but in a weak *Hop*, ſome principal new ſhoots are to be ſpared and left at dreſſing. As to the roots that run downwards, they are not to be cut off;

and

and diſtinguiſh them, *obſerve*, that the old roots are red, but thoſe of the laſt year white: the roots being dreſſed, the mould before rubb'd off is to be applied, and the hill not made too high at firſt.

The number, length, and bigneſs of the poles, are to be adjuſted according to the diſtance of the hills, quality of the ground, and ſtrength of the riſing hop-ſhoots; never begin to pole till the hop-ſhoots are above ground, when it is eaſily diſcerned which plants require the largeſt poles, for not a little advantage ariſes by a proper diſpoſing of the poles. In poling, care is to be taken that they do not meet at top, or any ways touch one another, for by ſo doing, they gall and break the *hop-wires*, ſo that all ſuch are ſpoiled and worth nothing: in ſetting the poles, it is therefore neceſſary that they are ſet ſo that they may fall a little outward at top, and by no means inwards, and that the ſun may the better ſurround the heads, let the poles lean a little *ſouthward*, which is accounted no bad management. When the hop-wires are riſen two or three feet above ground, conduct and tie them to ſuch poles as are fit for them. About Midſummer they leave riſing, and then begin to branch; but ſuch of them as have not yet climbed to the top of the poles, ſhould have their tops nipt off, or the tops taken from the pole, which will cauſe ſuch to branch the better, promote the increaſe of the Hop, more than when weak and runs high; but thoſe that have over-topt their poles by the before-

mentioned,

mentioned time, are not to be touched. [illegible]-time in May, after rain, make up the [illegible] hoe or ſpade; if large grounds, by plough[illegible] which will kill the weeds; it is alſo neceſſary in a dry ſpring to water them by letting in ſome rivulet, or ſpring, near at hand; but pond water is ſofteſt and beſt; on which account it is neceſſary to make a clay-ciſtern in the lower part of the ground, to receive haſty ſhowers, from whence, by ſmall aquaducts, you may lead the water to them. (*Vide Ciſterns.*) After every watering (*which need not be more than two or three times in the Summer, ſo that they be then thoroughly ſoaked*) be ſure to make up the holes in the hills that before were made to let in the water: let this be done with ſome parings and weeds, and other the cooleſt things at hand.

Hops blow about the end of July, bell about St. Laurence, and in forward years are fit to gather about the end of Auguſt.

Great care ſhould be taken to keep poultry, and particularly geeſe out of the Hop-ground, during the ſummer; neither are hogs deſirable gueſts here.

N. B. Dr. Sharrock adviſes not to let more than two or three ſtalks or wires run upon one pole, the over-plus are to be ſuppreſt. It is neceſſary that in looking over the Hop-ground, you be prepared with a forked wand, to help thoſe heads that do not hang right; when the ſtalks of Hops grow red, it is a ſure ſign of their growing wild, when he adviſes to take up the

th[illegible], and plant new. *Vide his Propagation of Vegetables, page* 111. It is alſo neceſſary to keep the hills higheſt at the outſide, and loweſt in the middle, the better to let the rain and waterings drain to the roots. *Ibid.*

As for dunging and ſoiling of Hop ground, if the dung be rotten, it is to be mixt about two parts of common good mould, and ſo lie all winter till Spring, and then make up the hills with it. New dung is very injurious to Hops, that of horſes and cows very good, but not to be compared with that of pigeons or poultry; a little of which laid to a hill, and mixt, that it be not too hot, is excellent: ſheeps-dung is alſo very good, ſo that it be ſteeped in water till it be diſſolved, and when the Hops are watered, a diſhful of it may be put into the hollow place, made to contain the water; and pouring common water upon it, it will convey the virtue of it to the roots of the Hops, which is the moſt expeditious and cheapeſt way of manuring the Hop-hills of all others.

Hops are not to be gathered while wet, but if the dew be on them, or a ſhower, the poles may be ſhaken, and they will dry the ſooner. If over ripe, they will be apt to ſhed their ſeed, wherein is their chiefeſt ſtrength, neither will they look ſo green, but be of a browniſh colour, which leſſens their value, although ſome, let them ſtand as long as poſſible, for then they waſte leſs in the drying; for four pounds of undried Hops, thorough ripe, will make a pound of dry, whereas five

pounds

pounds of thoſe ſcarcely ripe, will hardly make one. Therefore the proprietors get more in the thorough ripe Hop in the weight, than they loſe in the colour.

N. B. Thoſe Hops gathered before they turn browniſh, and yet in their prime, are by Hop-dealers called, *a flower*.

As to the gathering and picking them, be as expeditious as poſſible when the Hops are ready, and the moſt proper way is to have a frame ready about ſeven feet long, and four over, to which tack a coarſe cloth, like a winnowing ſheet, letting it hang down to the ground within the frame, round which the pickers are to ſtand, ſo that as they ſtrip, the Hops fall into the cloth within the frame, and when it is full carry it off, and place another, and ſo proceed with one or more, according to the ground, 'till all are finiſhed; but as ſoon as an *ouſt* is gathered, it is proper to dry them, and ſo on as faſt as gathered. A *malt-kiln* with a *plate*, is the moſt proper, but then, Hops are to be dried with *coke* or *charcoal*; any thing elſe is apt to hurt the colour.

As to bagging (*after they have lain a proper time to cool and toughen*) there muſt be a proper hole made for the purpoſe in an upper floor, big enough for a man to turn himſelf in; round which hole a frame is to lie on the floor, ſquare or round; but a ſquare hole and frame is beſt, to which frame faſten the Hop-bag, and let it hang down towards the lower floor, then put in a few Hops; put them into the

two lower corners of the bag, and tie the corners round with packthread, which will then be like taſſels, whereby the bag, when full, may be the better and more conveniently lifted and turned about: then a perſon is to get into the bag, and tread cloſe to each ſide, whilſt another perſon throws the Hops in; when it is well trodden and full, let the bag down by unlooſing the top, and cloſe the top, tying Hops in the two upper corners as before.

HORN-BEAM,

Is either planted of ſets, or raiſed from ſeeds, which ripening in Auguſt, are to be ſown in October. They generally lie a year in the ground: when they riſe, the ground is to be well ſhaded; but the moſt expeditious way is by layers, about three inches round, when weaned from the mother-plant; cut it within half a foot of the earth after it is ſet; managed after this manner, it will riſe to a conſiderable tree. It delights in cold hills, ſtiff ground, and the moſt barren, expoſed, and moiſt places of the woods. It is better than yew, crab, *&c.* for mill-cogs, and all other uſes where friction is required, as alſo for yokes for oxen, *&c.*

HORN-GELD,

A tax within the bounds of a foreſt for all manner of horned beaſts commoning there. Head-money.

HORSE-

HORSE-BEANS,

Are of ſeveral ſorts, the larger are propagated in Leiceſterſhire, and in the vale of Red-horſe, and in ſome other vales, as likewiſe in the north-eaſt part of Northamptonſhire, *&c.* (*Vide Beans.*)

HORSE-DUNG,

Is accounted one of the beſt ſort of dungs when laid upon very binding lands; ſhould be when it is long, and before it is rotten, but when to be laid upon other lands, it is firſt to be well digeſted; when it is proper for all other ſorts, a burning hot gravel, and other burning lands, only excepted.

HOVEL,

A covering, or ſhelter made of hurdles, *&c.* for cattle to lie under, or to ſet up utenſils of huſbandry. Hovels are moſt commonly ſet at the outſide of farm-yards; and on the top of them, by way of winter-cover, and convenience, are ſet reeks of barley, beans, oats, *&c.* The walls to the back part are generally built with ſtone; but on ſhifting and moving the Hovel-timber, and laying on the *grain*, and taking it off, and when taken off *(for want of proper care)* the walls are expoſed to all rains that fall upon them, ſo that they often ſtand in need of reparation, and are ſeldom whole. In order therefore to render theſe more durable, the

beſt method is to cover the top with broad ſtone ſlabs, coming over the wall on each ſide about an inch, and each ſtone is to be three or four feet long, and laid well in loam, and horſe-dung well tempered. Hovel walls ſo covered, ſecures them from all the before-mentioned diſaſters, and will very ſeldom want repairing, ſtanding three times as long as thoſe built the common way. The thicker and heavier the top ſtones, the better.

HOVER-GROUND.

Any light ſort of ground.

HOUSE-BOTE,

Is an allowance of neceſſary timber out of the lord's woods, *&c.* to uphold, or repair a houſe, tenement, barns, ſtables, and other edifices belonging to a farm, *&c.* To this I ſhall add cart-bote, fire-bote, and plough-bote, which are alſo allowances from the lord's woods for the maintenance of ſuch things as their names expreſs. Theſe were formerly allowed to tenants who had leaſes for three lives, and likewiſe to copyhold tenants upon lives, but very ſeldom to tenants at will, and ſhort leaſes for fifteen, or twenty-one years; but now I am ſpeaking of this cuſtom, I beg leave to mention a thing of a particular farmer and *tenant at will*, (whether he had *all* theſe Botes allowed him, or as his landlord lived at a conſiderable diſtance, made free with them only,) I do not

not pretend to determine; but it is believed, the latter only (*or that there might be a good underſtanding between the ſteward and tenant*) however he lived upon the farm 'till his houſe was hardly to be found for wood-piles, and ſtacks of faggots, ſome being almoſt as big as the houſe, and moſt of theſe piles and ſtacks ſet round with valuable and uſeful ſtuff, ſo that a carpenter that worked upon the premiſes, thought he might have a right to ſome, as well as his maſter all (*the houſe ſtanding a mile or more from any pariſh.*) The carpenter would in an evening ſometimes on going from his work, take a uſeful bit on his ſhoulder, and get off with it, which occaſioned the farmer his maſter to ſay, Abraham, (*which was the carpenter's name*) if he gets a piece of wood on his ſhoulder, and his back towards me, thinks nobody ſees him, which was indeed all the puniſhment the fellow had, as it was not wiſdom to quarrel; ſo that it may be ſaid, they got the *d—l* and all to *boot* among them.

HUMANE-ORDURE,

Is a great improver of land, eſpecially if mixt with other dung, ſtraw, or earth, of which ditch-earth is the beſt; on hot, dry, and burning lands it makes great improvement. It is alſo neceſſary to mix ſome of the before-mentioned ingredients with it, which makes it more fit for carriage. It is moſt proper for paſture grounds.

HURDLES,

Are certain frames made of ſplit timber, or hazle-rods, wattled together, to ſet out turnips, *&c.* with, and to make ſheep-folds, pens, *&c.*

I.

INCLOSURES, or *Encloſures*,

Are great improvers of land; the hedge-rows keep the ground warm, and ſhelter it from nipping and piercing winds, that often hurt the *grain* growing, and commonly happen in dry *Springs*. They alſo contribute very much to enrich the land; for the farmers will not grudge any pains or expence when their land lies by itſelf. It is a means to furniſh the occupiers with greater crops of *grain*; becauſe the land is much more capable of improvement, and by an ingenious and induſtrious farmer, will be much more improved by ſowing artificial *graſſes*, ſo that land that has not been worth more than *eighteen-pence* or *two ſhillings* an acre when open, has been improved to *ten ſhillings*, and the farmers raiſed themſelves fortunes upon it too, as on Dunſmore-heath in Warwickſhire, *&c.* and which when open, was uncapable of improvement, as a great many *thouſands* of acres alſo are in the kingdom, which now afford no employ for the poor; but if incloſed, would employ a great number of hands, and

and alſo ſupply the kingdom with a *commodity* very lately ſo much wanted. The following has been (*and in ſome meaſure now is*) an objection to incloſing, that when an incloſure is finiſhed, there is but little work left for the poor, a few hands being then ſufficient to do the work; but then, this objection is commonly made by thoſe people that live near incloſures made of good land, that is more fit, and conſequently more employed for paſture than for tillage; and beſides, thoſe people making ſuch complaints and objections, have not ſeen perhaps any large commons, heaths and waſtes, thinking the whole kingdom to be of the ſame quality with the ſpot on which they were bred, and now live upon; but let every rational man that has ſeen a good part of his *native country*, maturely conſider what a number of hands would be employ'd in improving the barren *waſtes* in this kingdom if they were to be *taken in*, which now employ few or hardly any; beſides, incloſures, in *fifty or ſixty years*, will ſupply the kingdom with fewel and timber, two articles which are very much wanted. Moreover, if the whole kingdom was incloſed, the poor would be more equally diſperſed, as theſe large commons, heaths, and waſtes, would call for hands from thoſe places that are now by much over-ſtock'd, to the great burden of the farmer, and the ruin of the poor themſelves; but ſince the improvement of land is

become a principal *ſubject* of the nation in general, and has been undertaken by ſome ingenious perſons in particular, that have enlightened the eyes of the blinded farmers, who have time paſt managed their farms by rote, and after the manner of their forefathers, *always carrying dung into the fallow field, and reaping their corn in harveſt*, &c. I need not ſay much to recommend the utility of it. An incloſure then is certainly one of the greateſt encouragements to good huſbandry, and a great improver of land, and the landed intereſt, and the beſt remedy againſt idleneſs and beggary: the poor being employed by the continual improvements and labour beſtowed thereon, which is repaid in a double or threefold proportion by the fruitful crops produced yearly by ſuch good management, and will alſo maintain double the number of inhabitants than the champain grounds can do.

Neither are *Incloſures* ſubject to a number of inconveniencies that attend open and common field-land, for ſuch being ſowed, are liable to be ſpoiled by cattle that ſtray out of the adjoining commons, highways, *&c.* beſides the *farmers* that occupy the ſeveral parts or portions in ſuch fields, are bound to keep time both in ſowing and reaping, or their reſpective parts are ſubject to waſte. The differences and reſpective profits thereof, are plainly to be diſcerned by the *ſeverals* or incloſed parcels of land, that have formerly been taken out of

of the open fields or commons; how much do they excel the other in every reſpect, though the ſoil be the ſame; and a hedge only between? and what a yearly value do they bear above them? what great quantities of land, which within theſe fifty years have laid open and in common, and then of little value, do now ſince incloſed, tilled and well ordered, prove very good, and by further improvements will doubtleſs make ſtill greater advances; ſo that neither the popular and inſufficient argument of its contributing to the ruining of the poor, nor yet the ſeveral intereſts of proprietors, *&c.* ſhould be any impediment to the progreſs of it, even on ſuch lands where timber will hardly thrive; but rather greater diligence and application be uſed, to plant ſuch fences and trees, and in ſuch manner as will beſt agree with the land, and ſucceed and proſper beſt; for ground of different qualities is required to different plants, nor can any one ſoil indifferently and equally agree with them all, according to that of Virgil.

All grounds can't all things bear: the alder tree
Grows in thick fens; with ſallows brooks agree.
Aſh craggy mountains: ſhores ſweet myrtle fills,
And laſtly, Bacchus loves the ſunny hills:
The yew beſt proſpers in the north, and cold,
The conquer'd worlds remoteſt ſwains behold:
See the eaſtern Arabs, the Geloni, theſe
Countries are all diſtinguiſh'd by their trees:
The blackeſt ebony from India comes,
And from Sabæa aromatic gums, *&c.*

It

It is obſervable, of moſt ſorts of land, that the ſmaller the incloſures or crofts are made, the greater yearly value they bear, as they certainly do near *cities* and great *towns*; but where the land is of the better ſort, and will feed an ox, a *field* of ſixty acres may very well be admitted of, and is as proper for the purpoſe, or more ſo, than one of ten; but where the land is indifferent, and is to be improved by *turnips* and graſſes, leſſer diviſions are more proper, as well as more advantageous; for in dividing the former, the land is cut up into ditches, and the reſt cannot be bettered, or more improved by it; but in the latter, the caſe is quite the reverſe, for pieces of ten or fifteen acres are more convenient for the before-mentioned purpoſes, than thoſe of a greater extent, and the ſheep, *&c.* when pen'd up to turnips, are better ſheltered than when the fields are larger, and the land made more capable of all other improvements. I alſo adviſe, that meadows capable of being overflowed, or that are uſed to be artificially overflowed, be made and kept as large as poſſible, for the water being brought over them in a proper manner, gives them all the improvement they are capable of, without cutting up the ground into ditches, and to anſwer no other purpoſe.

I would adviſe, when a Lord of a manor has an intention of incloſing, to keep it a ſecret between himſelf and ſteward (*eſpecially when there are freeholders*) ordering his ſteward to *ſound* ſome of

of the moſt likelieſt to ſell, firſt, ſaying, my *Lord* has ſome inclination of enlarging his eſtate in this pariſh, if he could do it pretty near upon equal terms; but however I dare venture to ſay, he would give ſomething more for a *farm* than it is worth, and as yours lies a good deal interſperſed with his, What do you ſay, Mr. ——— *&c. and ſo proceed by gentle means.* And if at a good price, he buys a farm or two, or three, or ſmall parcels, or what he can conveniently get together; he then has the fewer left to contend with, and a greater ſhare of property to add weight to his purpoſe when it comes to be puſhed forward in earneſt.

And every one who is acquainted with the late and preſent improvements in agriculture, knows, that incloſing is a great improvement of land, and an advantage to the nation in general as aforeſaid, as well as highly profitable to the undertaker in particular.

If the freeholders cannot be all perſuaded, yet at leaſt an agreement ſhould be puſhed forward by the ſteward, and a ſcheme drawn up with proper conditions and award, wherein it may appear that an exact and proportional ſhare will be allotted to every proprietor, perſuading them firſt to ſign this form of agreement, allowing them a right of chuſing a competent number of commiſſioners according to their ſhare of land, and theſe commiſſioners are to chuſe quality-men. By proceeding in this manner, an act of parliament, with all the

the trouble and charges attending it, may be avoided.

If the ſteward be a man of ingenuity and good ſenſe, he will here find a field large and ſpacious enough to diſplay it all, in rooting out *ſuperſtition* among the freeholders, as there is or can be nothing elſe that hinders and prevents all noble improvements.

In order therefore to bring all things to bear, it may be proper to draw up ſomething like the following.

Whereas it is found by long experience, that common and open fields wherever they are ſuffered or continued, are great hindrances to the public good, and the great improvement every proprietor might make of his own, by diligence and a competent charge; and being convinced in ourſelves, that the objections hitherto raiſed againſt incloſures are founded on miſtakes, as if incloſures contributed to injure and ruin the poor; when it is plain and evident, that (*when an incloſure is carried on*) the poor will be employ'd many years in planting and preſerving the hedges and mounds, and afterwards will be ſet to work in tilling and improving the land, by which they may get an honeſt livelihood. And whereas a great many inconveniencies and accidents which uſually attend the *open waſtes* and common fields, have been long and fatally experienced at ——— in the county of ———, to the great diſcouragement and diſappointment of induſtry and good huſ-

huſbandry in the freeholders there, that the corn and grain is ſubject to be ſpoiled by cattle that ſtray out of the commons and highways adjacent, that the freeholders and tenants, if they would ſecure their different properties, are obliged to keep exact time in ſowing and reaping, or be ſubject to very conſiderable damages and ſpoil made by others, whoſe time and circumſtances are different from theirs in ſowing and reaping as aforeſaid, for theſe and many more reaſons which might be aſſigned to encourage induſtry, and to aſcertain a ſecurity to every man of his property, and the quiet enjoyment of the fruits of his labour and care.

We whoſe hands and ſeals are hereunto ſubſcribed and ſet, being freeholders, do agree to the taking in and incloſing, and to the immediate ſetting about the work of an incloſure in the open and common fields of———aforeſaid, and to bring the ſame to perfection with all convenient ſpeed; and for the better executing and more ſpeedily carrying on the work, we have, and do by and with the aſſent and conſent of———, Lord of the manor of——— aforeſaid, nominate, conſtitute and appoint A. B. C. D. *&c. Eſquires*, to be our true and lawful commiſſioners and attornies, and do hereby authorize and impower them, or any——— or more of them, to act and do all things relating to the dividing, allotting and aſcertaining to all and every of us, and to all and every of our heirs and aſſigns, our, his, her, and their particular

cular part and parts, ſhare and ſhares of lands, within the fields, precincts and liberties of the pariſh of———aforeſaid. And we, and all and every one of us, for ourſelves, our and every of our heirs and aſſigns, do hereby impower them the ſaid A. B. C. D. *&c.* to nominate, appoint and ſubſtitue under them, ſuch number of farmers as they ſhall think meet and proper, being well ſkilled in the nature and quality of lands, to aſcertain to them, and they to us as aforeſaid, the nature, quality, and real value, and compare it and them with other part and parts, parcel and parcels of the like quality, and alſo aſcertain what number of acres of one quality, are equal in value to another number of acres of another value; and to take and purſue all and every other lawful means, act and acts, relating to the dividing, parting and parcelling out the open and common fields of———aforeſaid, allowing and confirming all, and whatſoever our before-mentioned commiſſioners and attornies, and their ſubſtitutes, ſhall lawfully do, or cauſe to be done, concerning the premiſes, in as full and ample manner as if we ourſelves might or could do, were we to act and were perſonally preſent, allowing to our ſaid commiſſioners and attornies———— and all other charges touching and concerning the ſame. In witneſs whereof we have hereunto ſet our hands and ſeals this———day of———In the year of our Lord, *&c.*

It

It is now common upon incloſing to chuſe commiſſioners, and then get an act of parliament that it may be the better carried on, and with more certainty, which act is generally got by a majority of the freeholders, of which the Lord of the manor muſt be a principal, for without his conſent an incloſure cannot be made; becauſe in moſt manors the Lord has a right in the *common*, of which there is, Firſt,

COMMON in GROSS,

Which is a liberty to have *common* alone, that is, without any land or tenement, in another man's land, to himſelf for life, or to him and his heirs; and it is commonly paſſed by deed of grant or ſpecialty. This ſort of commoning no way concerns the Lord of a manor. But,

COMMON APPENDANT, and COMMON APPURTENANT,

May, but are in a manner confounded, and are defined to be a liberty of *common appertaining* to, or *depending* on, ſuch and ſuch a freehold; which *common* muſt be taken with beaſts commonable, as horſes, oxen, kine, and ſheep, being accounted fitteſt for the ploughman; and not of goats, geeſe, and hogs. But ſome make this difference, that *common appurtenant* may be ſevered from the land whereunto it appertains, but not *common appendant*, which had this beginning: when a lord enfeoffed another in arable lands, to hold

hold of him in *ſoccage*, the feoffee, to maintain the ſervice of his plough, had at firſt by the courteſy and permiſſion of his Lord, *common* in his waſtes for neceſſary beaſts, to ear and compoſt his land; and that for two cauſes: one, for that it was tacitly implied in the feoffment, by reaſon the feoffee could not till or compoſt his land without cattle, and cattle could not be ſuſtained without paſture; ſo by conſequence the feoffee had, as a thing neceſſary and incident, *common* in the waſtes and land of the Lord. The ſecond reaſon was, for maintenance and advancement of tillage, which is much regarded and favoured by the law.

COMMON by reaſon of *neighbourhood*,

Is a liberty that the tenant of one lord in one town, have to *common* with the tenants of another lord in another town. Thoſe that challenge this kind of *common* (which is uſually called *inter-commoning*) may not put their cattle in the *common* of the other town; for then they are diſtrainable; but turning them into their own fields, if they ſtray into the neighbour *common*, they muſt be ſuffered. *Vide Cowel's Law Dictionary.*

From the before-mentioned, it appears, that the lord is the very principal perſon upon an incloſure, and that without his conſent, it cannot be executed, notwithſtanding he has not a foot of *known land* within his manor, but becauſe he has a right to land in *common*, for he is lord not only of *waſte*, but

but alſo of *common*. So that the *ſteward* (or other *agent*) is to take a ſpecial care that his lord has his *juſt* and *due* ſhare of land in *common* upon an incloſure, within his manor.

We will ſuppoſe commiſſioners are appointed, an act of parliament procured, and quality-men alſo provided by the commiſſioners, which are ſkilful farmers; perſons to aſcertain the quality and value of every different lot and parcel of land, and to ſet forth how many acres of ſuch land is equal in value to a certain number of acres of another quality (*ſo called quality-men.*)

I ſhall ſet forth a common error and groſs miſtake in the choice of lands upon an incloſure; when it is very common, for a freeholder to endeavour to get his land laid out as near home as poſſible, as that land is frequently the beſt, at leaſt moſt commonly appears to be (*but however the moſt convenient*) and often certainly is ſo; but very often ſuch perſons are deceived to their ſorrow; for moſt commonly ſuch land as lies near home is better managed, better dunged, and forced by manure, the lear of cattle, *&c.* when land lying farther from home, as good perhaps, or better in nature, lies utterly neglected. Therefore when an incloſure is upon the carpet, I would adviſe the lord who owns a conſiderable part of the land (*or has a good eſtate in the pariſh*) to get a convenient quantity of land laid out near his manſion-houſe, ſo as to make a paddock or park if he chuſes it,

or for other domeſtic conveniencies, and then let the other freeholders part the reſt of ſuch lands among themſelves, ſo that the lord gets a good allowance, quantity for quality; for the lord admitting his land to lie a good diſtance from home, may have almoſt what he pleaſes, for land lying at home is qualitied very high. Theſe premiſes being admitted of, it is but building *a plain farm-houſe or two, (or removing them from the town)* which may be done for an inconſiderable expence, and then the land lies at home here alſo, and perhaps nearer and more convenient than thoſe which were ſo earneſtly contended for; and this land capable of great improvements, and the other uncapable of being little bettered. A houſe ſo ſituated, is quite as (*or more*) convenient than one in a village. Beſides what has been ſaid before with regard to taking the odds in land, and of land lying from home, it may further be added, that notwithſtanding ſuch lands may be joined by a neck or iſthmus (*as it were*) to that part or parcel ſet firſt out for the park, *&c.* and ſpread itſelf to any extent, ſo as to take in and include the quantity allotted; provided nevertheleſs with this caution, that a convenient and ſufficient quantity of land proper to be converted into meadow-ground, be taken in with it.

INTER-

INTERSOILING,

In huſbandry, is laying one kind of *ſoil* or *mould* upon another; as clay on ſand, ſand on clay, marl on earth, *&c.* Something like this may be ſaid of mixing dungs and compoſts; for a mixture of horſe dung, cow dung, and rich earth, ſuch as is got out of ditches, overſhadowed with thick hedges, the mud of which being laid together, well mixt, and thoroughly digeſted, proves an *admirable* manure for moſt ſorts of arable and paſture land. This is a common practice in Eſſex. The quantity of this compoſt for clay-land is about twenty loads upon an acre; but for the red *hazely* brick earth, or other light land, as ſands, *&c.* from ten to fifteen loads upon an acre will do, becauſe ſuch require ſupplies oftener than clays.

INVENTORY,

Is a deſcription or repertory, orderly made of all dead mens goods and chattels, appraiſed by *four or more* credible men, which every executor or adminiſtrator is bound to exhibit to the ordinary at ſuch times as he ſhall appoint. This *Inventory* proceeds from the civil law, for whereas by the ancient law of the Romans, the heir was obliged to anſwer all the teſtator's debts, by which means heritages were more prejudicial to many than profitable. Juſtinian, to encourage men the better to take upon them this charitable office, ordained, that if the heir

would make a true *Inventory* of all the teſtator's goods, coming to his hands, he ſhould be no further charged, than to the value of the *Inventory*; and here it remains ſo at this day. *Vide Cowel's Law Dictionary.*

JUMENT,

Is a labouring beaſt, of any kind, either for tillage or carriage, as horſes, oxen, *&c.*

JUNAMES,

Is a word uſed in the weſt of England, for land ſown with the ſame kind of grain two years together.

IVY,

Is a creeping plant that twines about trees, and creeps upon walls, having not ſufficient ſtrength to ſupport itſelf. The woodward or woodman ſhould be careful in ſuppreſſing it, for by twining itſelf about ſuch trees, it obſtructs their thriving and further growth.

K.

KELP,

Produced from *wear* or *wrack*, a ſea-weed, growing moſt commonly on ſuch rocks as are overflowed only at high-water; when gathered, it is laid on heaps, dried and burnt, and being ſtirred about with an iron rake, grows thick, and cakes together. It is uſed in making of glaſs, and allum. After the allum-makers have done with it, it is commonly laid upon land, and although they have drawn

drawn a great part of its nitrous quality off, notwithſtanding it is an admirable manure both for tillage and paſture lands.

K E Y S,

A name for the ſeed of aſh-trees. *Vide Aſh.*

K I N E.

Of theſe I ſhall ſay little, every one is ſuppoſed to know what ſort ſuits beſt with his conveniency; the black Kine are produced in Cheſhire, Lancaſhire, Derbyſhire, and in the north and weſt ridings of Yorkſhire; red ones are produced in Glouceſterſhire, Somerſetſhire, and part of Wiltſhire; and in Lincolnſhire, and in the eaſt riding of Yorkſhire, py'd ones. North Wales alſo produces black ones. To which I ſhall here add a table of the increaſe of cattle, as I took it from an eminent author; for had I calculated a new one, it could not have been done upon better principles, nor yet in a better method.

This table ſhews the increaſe of cattle, beginning with 10, 20, 30 or 40 milch cows, with as many calves by their ſides, the firſt purchaſe of 10 cows, being with 10 cow-calves, and ſuppoſing their increaſe afterwards one year with another to be half males, half females. It will appear by the ſaid table, that 10 cows and 10 calves will increaſe to 1777 head in 12 years (*loſſes and failures excepted*) of which 486 will be milch cows, 243 cow-calves, and 243 ſteers and oxen. The ſame increaſe will

be in 11 years, beginning with 20 cows and 20 calves. And the ſame number will be produced in 10 years, beginning with 30 cows and 30 calves, and the like increaſe will be made in 9 years, beginning with 40 cows and 40 calves. Moreover as a ſtock of 10, increaſes in 12 years to 1777, ſo a ſtock of 20 in the ſame time ariſes to 2441, a ſtock of 30, to 3348, and a ſtock of 40, to 4587, as appears by the table.

The ſtock beginning with 10, the table ſhews the increaſe for any number of years, not exceeding 17, if it begins with 20, it ſhews the increaſe for years not exceeding 16, if it begins with 30, for years not exceeding 15, and if with 40, the increaſe is ſhewn for any number of years not exceeding 14. And by this table may be found the increaſe of a ſtock, beginning with 5, 15, 50, 60, 70 or 80, by taking half the increaſe of 10, by taking half the increaſe of 30, adding the increaſe of 20 and 30 together for 50, doubling the increaſe of 30 for 60, adding the increaſe of 30 and 40 for 70, and doubling the increaſe of 40 for 80. By which it will be found, that the increaſe of 50 cows and 50 calves, in 12 years, amounts to 5789 head, for $2441 + 3348 = 5789$, *viz.* 1571 cows, 785 cow-calves, and 786 ſteers and oxen. By this it is manifeſt, that the increaſe of cattle is very great, but this is to be ſuppoſed that the females are preſerved for breeding, as was formerly done in America, until a plenary ſtock was raiſed.

Years,

Years.				Cows.	Heifers.	Oxen.	Total.
1				10	10	. . .	20
2	1			20	10	10	40
3	2	1		30	15	15	70
4	3	2	1	40	20	20	110
5	4	3	2	55	28	27	165
6	5	4	3	75	37	38	240
7	6	5	4	103	51	52	343
8	7	6	5	140	70	70	483
9	8	7	6	191	95	96	674
10	9	8	7	261	130	131	935
11	10	9	8	356	178	178	1291
12	11	10	9	486	243	243	1777
13	12	11	10	664	332	332	2441
14	13	12	11	907	453	454	3348
15	24	13	12	1239	619	620	4587
16	15	14	13	1692	846	846	6279
17	16	15	14	2311	1155	1156	8590

To prove the table for any number of years therein, add the columns titled cows, heifers, and oxen together *(that ſtand againſt the number of years required)* with the number of oxen of every year's increaſe to the top of the column titled oxen, and likewiſe the number of heifers next above the number of heifers before taken out; from the ſum total ſubſtract 10, the firſt number of heifers or calves, belonging to the cows begun with, the remaining ſum will be the anſwer.

As ſuppoſe, proof was required how 10 cows with 10 cow-calves can produce 1777 head in 12 years. Againſt the 12th year in the firſt co-

lumn, and againſt 9 in the 3d, is 486 cows, 243 heifers, and 243 oxen, which ſums added together makes 972 + 178 + 131 + 96 + 70 + 52 + 38 + 27 + 20 + 15 + 10 + 178 heifers — 10 = 1777, what was required. And alſo for 13 years, is 664 cows, 332 heifers, 332 oxen + 243 + 178 + 131 + 96 + 70 + 52 + 38 + 27 + 20 + 15 + 10 + 243 heifers — 10 = 2441. The like of all others.

N. B. The explanation to the table above quoted, is what I have done myſelf; and whoever will duly conſider theſe obſervations, will find them conſonant with reaſon, *&c.*

K N O L L,

The top of a hill, a word much uſed in the weſt, more eſpecially in Herefordſhire; as Birchers-knoll, *&c.* and in ſome other parts of the kingdom, *turnips* are called by this name; particularly in Kent. Alſo in ſome other parts, the top of a hill or riſing ground is called knap, as the knap of the hill, *viz.* the top of the hill.

L.

LEAR-GROUND,

That is to ſay, good ground for cattle to feed upon, and lie or lear on, a word almoſt peculiar to the north. And *faugh-ground*, or ground lying *faugh*, is that which has lain a year or more untilled; and *arders*, are fallowings or ploughings of grounds, lands, *&c.* Poor lear, is barren land.

LAND.

L A N D.

All ſorts of land are reduceable to the following, *viz. boggy* or *marſhy*, *chalky*, *clayey*, *gravelly*, *hazelly*, *black-earth*, *rocky*, *ſandy*, and *ſtony*; which may be ſeen under their reſpective heads; but for the better knowing and judging of fruitful and unfruitful *ſoils*, take the following general rules: *Firſt*, all ſoils that moulder into duſt with a froſt, with all ſorts of warm *lands*, *black-mould*, *yellow clays*, if not too ſpewy and wet, and that turn black after rain, are good for corn. *Secondly*, *land* that produces large *trees*, *black-thorn*, *thiſtles*, ſtrong *weeds*, rank *graſs*, *&c.* lying in bottoms open to the *eaſt* and *ſouth*, and well ſheltered from the *north*, is a ſign of their fruitfulneſs; betony, ſtrawberries, thyme, *&c.* declare for wood-land, and camomile, to a ſoil fit for corn. *Thirdly*, all *land* that binds and cloſes hard after froſt and rain, that turns white and full of worms, and that is extreamly moiſt, or otherwiſe too dry; that lies on the *north ſide* of hills, expoſed to winds and froſts in winter, or to ſcortching heats in ſummer, that bears *box*, *yew*, *holly*, *ivy*, *juniper*, *brake*, *broom*, *furz*, *heath*, *ling*, *&c.* and all ſuch *land* that yields *flags*, *moſs*, *buſhes*, wild *tanſey*, *yarrow*, *&c.* is a demonſtration of their cold nature. *Fourthly*, plants appearing blaſted or withered, ſhrubby and curled, are the effect of immoderate wet or heat, and cold interchangeably. *Fifthly*, *black*, *dun*, or *yellow ſand*, and extreme hot, ſtony gravel, are generally very unfruitful.

LAND-

LAND-CHEAP,

Is an ancient cuſtomary fine, paid either in cattle or money, upon the alienating or ſelling of land in ſome particular manor, or borough: as at Maldon in Eſſex, a payment is ſtill made of thirteen pence in every *mark* of the purchaſe money, for certain lands and houſes in that town.

LAND-FLOODS,

In ſeveral places are a great annoyance to *huſbandry*; and all that I ſhall ſay about the matter in this place, is, that as much as the conveniency of the ſituation and lying of the land will admit of, it would be proper to divert them before a thorough *drawing* or *draining* be attempted. (*Which ſee under their proper heads.*)

LARCH, or LARINCH-TREE,

Is a lofty, ſtately tree, ſo called from Lariſſa, a city of Theſſaly, where it was firſt known. It bears *clogs* or *cones*, and leaves like thoſe of the *pine* or *fir* tree, from which it is diſtinguiſhed in this, that when the new leaf puts forth, the old one is thruſt off. This tree may be raiſed from the ſeed exactly as the fir, *to which I refer you.* It affords excellent beams: many buildings in Venice, and other parts of Italy, are erected with it, which no worm will touch. M. Witſen, a Dutch writer, mentions a veſſel of this timber, ſome years ſince found in the Numidian ſea, which although it had lain twelve fathom

fathom under water, fourteen hundred years, yet no part of it was rotten. This is the tree that produces a muſhroom called *agarick*. The gum is what is here called Venice turpentine. Some of theſe trees planted about Chelmsford in Eſſex, and other places, proſper very well, and afford an incomparable ſhade, which reproaches our neglect in not cultivating it.

L A Y S,

Graſs-ground firſt ploughed up for *corn*, and *lay-land* is fallow ground that lies untilled. *Lay-ſtall*, a place to lay dung, ſoil, or rubbiſh in.

L E E T.

Under this head I ſhall include not only a *Court-Leet*, but alſo *Baron*, *Halimote*, and *Thane*. Firſt, of *Leet*, which is a court of juriſdiction above the *Wapentake* or *Hundred*. Many *Lords*, together with their *Courts-Baron*, have likewiſe *Leets* adjoined, and thereby take cognizance of ſuch *tranſgreſſions* as are ſubject to the inquiry and correction of this *court*. But this court, in whoſe manor ſoever it be kept, is accounted the king's court, becauſe the authority thereof originally belongs to the *crown* and *dignity* of the king, though it cannot puniſh many, but muſt certify them to the juſtices of aſſize. *Vide Kitchen, fol.* 6. *Dyer, fol.* 64. *Court-Baron*, is a court which every lord of a manor (*who in ancient times were called Barons*) hath within his own precincts,

cincts, and this court is twofold after a ſort; and therefore if a man having a manor, grant the inheritance of the copyholders to another, the grantee may keep a court for the cuſtomary tenants, and accept ſurrenders for the uſe of others, and make both admittances and grants; the other court is of freeholders, which is properly called the *Court-Baron*, wherein the ſuitors, that is, the freeholders, are judges; whereas of the other, the the lord or his ſteward is judge. This is therefore more properly called the court of freeholders, over whom the lord of the manor preſides. *Vide Kitchen, and Sir Edward Coke, lib. 4. fol. 26. Halmote* or *Halimote*, is what we now call a *Court-Baron*; and the Etymology is the meeting of the tenants of one *Hall* or *Manor*. As the word *Hall* does ſtill denote a chief manſion-houſe or habitation, and is retained in many counties of England; but in ſome part it is called the *Manor*, in others, the *Place*, as *Beenham-Place*, one of the ſeats of the Right Honourable Lord Craven in Berkſhire. The word *Halimote* is ſtill retained at Luſton, and other places in Herefordſhire, and ſignifies the Lord's Court, or Court-Baron held in the manor, in which the differences between the tenants were determined. *Thanage of the King*, or the *King's Thane*, ſignified a certain part of the *king*'s land or property, whereof the ruler or governor was called *Thane*. Theſe *Thanes* were thoſe that attended the Engliſh Saxon king's in their courts, and who held their lands immediately of thoſe kings, and therefore

fore in *Doomſday-book* they are promiſcuouſly called *Thane* and *king's ſervant*, though not long after the conqueſt the word was diſuſed, and inſtead thereof, thoſe men were called the *King's barons*. There were alſo *minor* or *leſſer Thanes*, and thoſe were likewiſe called barons: they were lords of manors, and had a particular juriſdiction within their limits, and over their own tenants in their courts, which to this day are called courts-baron. *Thane-lands*, are ſuch as were granted by charters of the *Saxon* kings to their *Thanes* with all immunities, except the threefold neceſſity of expedition, repair of caſtles, and mending of bridges. And *theyn* ſignifies freeholder, as *thet* a ſervant. *Vide Cowel's Law Dictionary.*

N. B. The manſion-houſe of———Jones, Eſq; of Ramſbury in the county of Wilts is called the *manor*, i. e. Ramſbury manor. And alſo the manſion-houſe of Henry Wight, Eſq; of Wood-End in the pariſh of Blakeſly, in the county of Northampton, is called the *manor*, i. e. Wood-End (or *Blakeſly*) *manor*. As to *hall*, I need not further explain the meaning of it, it being a common appellation well known in almoſt every county.

LENTILS,

Are the leaſt of all pulſes. In Oxfordſhire, *&c.* they are called *tills*; they thrive on any poor, ordinary and ſtony land. From a few ſown upon an acre, an incredible quantity will be reaped, although on the ground they appear few, and lie in

a

a little room upon the cart. They are excellent ſweet fodder, and preferable to all other for calves, and other young cattle, and are to be given ſparingly to all, as being a rich food. They are the beſt food for pigeons, *&c.*

N. B. *They are ſown in the bean ſeaſon, about a buſhel upon an acre.*

LETTING of FARMS.

It is very natural as well as common to let them to the beſt bidder; but then the quality and condition of the farm and tenant are to be duly conſidered; as when a farm has been under bad government a conſiderable time, it muſt conſequently be in a bad condition; notwithſtanding it ſometimes happens that a tenant may be met with, that will give as much for it as another farm is let for in the ſame manor, of the ſame number of acres, and in good condition too, better perhaps than this by——— pounds *per ann.* now whether it is proper to let it to the beſt bidder or not, is the next thing to be conſidered. To which I anſwer, it is in this as in a great many more caſes, where the capacity of the tenant is the material thing. Some there are that want a farm, and will give more than others purely to get into *one*, not at all thinking or conſidering how they muſt pay the rent, and perhaps as little know how to make it, and theſe alſo have *(commonly)* as little ſubſtance; ſo that in two or three years the farm is thrown upon the landlord in a much worſe condition than it was before, and

and the landlord perhaps obliged to make a ſeizure to recover his rent, or ſome part of it only, and what is worſe *(perhaps)* a burden brought upon the pariſh; there being a *(numerous)* family to be provided for, and employed in a place where there is little or no work to be done; or at leaſt ſuch as they are not capable of doing. There is another ſort of tenant whoſe capacity is unqueſtionable, and will give the higheſt rent as tenant at *will*, purely to anſwer ſome private end, and will worry the very heart of the land out, and then throw it up worſe than it was before. There is yet another farmer, a man of ſubſtance and ingenuity, capable in every reſpect to manage it; but then he will not give ſo much for it perhaps by———pounds *per ann.* I adviſe by no means to an abatement of an annual rent, (*nor yet part with ſuch a tenant*) which in *fact* leſſens the real value of the *lord*'s eſtate: therefore the beſt method is, to let it upon a leaſe of——years, and allow the tenant the firſt half year, or —— rent, which gives the greateſt encouragement of any, and (*I think*) the beſt both for landlord and tenant: and if a tenant of ſufficient ſubſtance cannot be met with, yet by the above encouragement, a tenant of ingenuity, ſkill, and induſtry may, and by ſuch allowance at his firſt ſetting out, will almoſt perform wonders; however on ſuch a man it will take a ſurprizing effect when ſo beſtowed, and if found neceſſary, ſome other little favours may be added, but then ſuch tenant ſhould give proper ſecurity. Beſides, bringing

bringing in a tenant that underſtands every minute article of improvement and good huſbandry where it is wanting, will undoubtedly have a great effect upon the other tenants, if they have any docility in them, and will tend greatly to the advancing the *lord*'s eſtate: and it is further obſervable, that a *farm* may be dear and hard rented to one farmer, and yet in another hand may prove cheap, and a good bargain: that is, to ſuch a one that underſtands every minute article of improvement and good huſbandry; ſuch is the difference in the management of a farm. And every ſteward ſhould well underſtand and be ſenſible when a farm is let to its value, that an ingenious and ſkilful tenant, that manages with art, and according to all the good rules of improvement and good huſbandry, be not *grudged* his growing rich upon it, when perhaps a different perſon from himſelf could hardly pay the rent with hard labour.

I ſhall to this add a *ſection* taken from the Gentleman's Magazine for November, 1758, and to which add ſome remarks of my own.

" November, 1758.

" Mr. URBAN,

" As ſeveral valuable hints were inſerted in " your uſeful collection of the laſt year, relative to the exorbitant price of grain, I have " according to the beſt of my judgment, given you ſome looſe and general thoughts on

" what

" what, in my opinion, was the ſource and ori-
" ginal cauſe from whence that evil ſprung.

" Mr. Rollin, in his ancient hiſtory, informs
" us, that Lycurgus, that great Spartan legiſla-
" tor, upon his entering into the adminiſtration
" of his government, obſerving that the lands
" were monopolized into few hands, who grew
" extreamly wealthy, while the reſt of the people
" were labouring under great diſtreſs and poverty,
" made it his firſt care to order, that an equal
" diſtribution of lands ſhould be made, that there
" might be an employment and encouragement
" to induſtry for numbers, who at that time
" were but ſlaves and vaſſals to thoſe engroſſers;
" and we find, according to his account, that in
" a few years, the lands became better cultiva-
" ted, the country vaſtly more populous, and the
" ſtate reaped great benefit from this new regu-
" lation.

" The engroſſing of farms in this kingdom,
" particularly in the corn countries, is a practice
" which has greatly obtained of late years: and
" it is generally thought, that the land ſtewards
" have been, in a great meaſure, inſtrumental to
" it, as they have thereby had an opportunity of
" ſerving themſelves, * their relations or friends;
" but whether the landed gentlemen themſelves
" will be gainers by it in the end time will ſhew.

* " It is well known, that in the counties of Suffolk and
" Norfolk, ſeveral of them have got whole pariſhes into their
" hands."

" It is the opinion of many ſenſible and judicious " farmers, that gentlemen do not take the moſt " effectual method to improve their lands, by " putting ſuch great quantities into one man's " hands to occupy; becauſe it is impoſſible, as " they ſay, for one man to cultivate to ſo great " advantage, two or three thouſand acres of ara- " ble and paſture land, as might be done by ſe- " ven or eight, who, by making a far greater " quantity of manure of all ſorts, and attend- " ing more cloſely to the moſt minute circum- " ſtances of improvement, and raiſing and pro- " ducing all ſorts of neceſſaries of life for the " weekly markets, might be more advantageous " tenants, and better huſbandmen.

" However, this I think, a man may venture " to foretel, that if the practice of throwing down " the ſmall and middling farms, and taking in " the commons, ſhould continue for twenty years " to come, as it has for fifteen or twenty paſt, " half the ſhops in the market towns muſt be " ſhut up, and the people ſent to ſeek their bread " in ſome other country, while thoſe that remain " muſt be eaten up by taxes and poor rates. " The great declenſion of trade in the market " towns, occaſioned by the decreaſe of the con- " ſumption of our manufactures, is become a ſub- " ject of univerſal complaint, and muſt in a few " years greatly effect the revenue; and there is ſuch " a connection between trade and the landed inte- " reſt, (whatſoever ſome gentlemen may think)

" that

" that the one cannot ſuffer long, but the other
" will inevitably feel it in a very ſenſible manner,
" notwithſtanding all the temporary expedients
" that may be thought of to prevent it. It is a
" truth too well known in the counties of Suf-
" folk and Norfolk, and it is to be feared, is
" too much the caſe in ſeveral other counties,
" that there are a great number of pariſhes, in
" which, thirty years ſince, there were fourteen,
" fifteen, or ſixteen farmers in a pariſh, who oc-
" cupied from fifty to a hundred, or a hundred
" and twenty pounds *per ann.* who weekly ſup-
" plied the market towns with all ſorts of pro-
" viſion, and returned home with each ſome
" ſmall portion of the manufactures of their
" country; where there are now not more than
" two, or three at moſt, and in ſome places but
" one; ſo that the country villages are in a man-
" ner depopulated; for, excepting two, or, very
" rarely, three very large farm-houſes, nothing
" is now to be ſeen but a few wretched cottages,
" and as wretched inhabitants, without furni-
" ture, and almoſt without clothes, who are
" ſlaves to theſe all graſping farmers, who can
" now lay in their port-wine by the pipe, and
" ſend their daughters to boarding ſchools, to
" make as genteel an appearance as thoſe of their
" landlords.

" But there is another evil attending this prac-
" tice of monopolizing farms, and that is, the
" putting it too much in the power of theſe

" great growers in a time of ſcarcity, to diſtreſs " the country, by with-holding their corn from " market, and thereby occaſion an artificial fa- " mine." *I think the gentleman miſtaken with regard to incloſures.* (*So far the Magazine.*)

I have obſerved in the counties of Berks and Wilts, that moſt of the farms are got into few hands, unleſs in the Vale of White-horſe, where they are more equally diſtributed: if I miſtake not, Chowleſly farm in Berks is no leſs than *eight hundred pounds per ann.* and as it lies on the Downs, muſt comprehend a vaſt track of land; and another at Farnborough, when I was acquainted with that country, was occupied by two brothers in partnerſhip, what the rent was, or is, I cannot tell; but ſeeing one of them about the year 1748, at a friend's houſe in Northamptonſhire, I heard him ſay, the farm paid 150 *l. per ann.* land-tax. As to the farms in Wilts, they are commonly very large, and more ſo about Trowbridge, where I could name ſeveral, and in ſhort numbers in both counties. And I have obſerved in thoſe places, that the farmers are in regard to their poor vaſſals, as ſo many petty princes, and thoſe vaſſals very ſubmiſſive, and for the moſt part very indigent and ignorant. I ſhould think a farm in any part of the kingdom from a hundred to three hundred and fifty pounds *per ann.* if paſture and grazing, ſufficient, if well managed, for any one farmer to maintain and ſupport his family; and from a hundred to five

hundred

hundred acres, by ploughing and improving by graſs ſeeds (*to make it fit for dairying*) enough for a farmer to occupy, ſo as to look into every minute article of improvement; which would afford work for the poor by ſuch management, and a ſufficient number of farms for thoſe who have ſubſtance to occupy, and ingenuity to manage them to the greateſt improvement and advantage.

It would be the greateſt œconomy in a ſteward, to let his lord's lands to ſuch farmers as underſtand every minute circumſtance of improvement, which agrees with what I have before advanced.

And to give a ſtrong inſtance of œconomy in the management of open field land. I know a farm in Northamptonſhire, the rent of which is ſeventy-two pounds *per ann.* The lordſhip, by computation, contains no leſs than three thouſand two hundred acres (*excluſive of homeſtal cloſes, crofts, &c. which are ſmall*) ſo conſequently a conſiderable part of a farm muſt lie at ſome diſtance from home; but in this farm about eighteen pounds *per ann.* lies in homeſtal cloſes, which is not often to be met with in an open field lordſhip. The lordſhip conſiſts for the moſt part of very good land, either for tillage or paſture, unleſs on the hills, and thoſe are at a conſiderable diſtance from home, where it is more light and proper for rye, *&c.* The method he takes with this ſort of land, is, when it is ſown with

rye, *&c.* the Spring following to ſow ſome of the artificial graſſes, and at harveſt, not to cut the *ſtubble*, but leave it to ſhelter the graſs the Winter following; the next Summer, the graſſes are ſtrong, which he mows twice before Lammas, as at that time it is in common: the next Summer it is fallow, (*according to the courſe of three fields*) when his neighbours have their ſhare of his improvements; but this he takes no notice of. The ſucceeding two years, being the wheat and bean fields, he mows it as before, and the next year being fallow, he ploughs it up. In this manner he uſes his diſtant and light lands, in each of the three fields, ſo that he has two fields managed in this manner to cut every year, and always keeps one part younger than the other, by keeping one part in tillage, while the other part lies for the graſſes as before-mentioned, and ſo proceeds alternately, *viz.* he ſows the wheat-field year, mows the bean-field year, eats it upon the fallow year, and mows the next wheat and bean-field years; and the next is fallow, ploughed as other land, and ſown wheat or meſlin, when his neighbours content themſelves with a crop of rye, *&c.* For by this management he is enabled to keep a great ſtock of cattle, and to winter them much better than he otherwiſe could do, and they produce him a great quantity of compoſt and dung, ſo as to dung his meadow and other graſs grounds plentifully; beſides, he has much greater quantities for his tillage than his neighbours; moreover by this way of proceeding,

ceeding, he gives an alternate reſt to his light and weaker lands, which are made fit to bear a crop in their turn, and by this means they produce perhaps a double quantity to what they otherwiſe would do, managed in the common way, or by rote: this enables him to keep a large dairy conſidering his farm, his cows are fed with the richeſt fodder, which increaſes butter, cheeſe, pork, *&c.* in much greater quantities than his neighbours, or himſelf otherwiſe could do. And although his farm is at an exceſſive rack-rent, dearer than his neighbours; yet notwithſtanding, by this management, and his underſtanding every article of improvement, can ſell off his farm more than three rents in any common year, his dairy included.

I mention this only as an inſtance, to ſhew how careful a ſteward ſhould be in the choice of tenants for his lord's eſtates; for as I ſaid before, that a farm which one tenant lives well upon and gets money, another tenant perhaps could not live upon with hard labour; ſo that as I have ſaid before, a ſteward ſhould well conſider and know when a farm is well let, that an ingenious and underſtanding tenant, be not grudged his getting money by his ingenuity, and by what he excels his neighbours in.

LEVEL,

By this I here mean the air, or ſpirit level only (*the inverted level being mentioned and deſcribed under fiſh-ponds.*) An air-level is a ſtrait tube of glaſs, filled within a drop with any liquid that will not freeze; for which reaſon ſpirits of wine is moſtly uſed, from thence it is moſt commonly called the *ſpirit level:* this cylindrical glaſs tube when filled, is hermetically ſealed; and when horizontal, the bubble or ſpace poſſeſſed with air, will be in the middle; but upon the leaſt declination from an horizontal poſition, the bubble flies upwards, becauſe any quantity of air is lighter than the ſame quantity of the liquid contained in the aforeſaid tube; but when the bubble ſwims in the middle, the level is in a true horizontal poſition; and ſo by proper ſights fixt at each end, perpendicular to the tube, and of equal length, any thing ſeen through theſe ſights, when the bubble is in the middle of the horizontal tube, is exactly level or horizontal.

N. B. There belongs to this level, ſtation-ſtaves, *&c.* which are uſed by engineers, ſurveyors, *&c.* to find the true level for the more certain and better conveying water to towns, making rivers navigable, draining lands, *&c.*

LIGNUM-VITÆ,

Grows of every layer to a tall, ſtraight tree. *Vide Arbor-Thya.*

LIME,

LIME,

Is in ſome parts of the kingdom made of chalk, where it is plentiful, as in other places it is made of ſtone; but that which is ſandy and cold is not for the purpoſe: free-ſtone, and all ſorts of ſoft ſtone, eſpecially a grey, dirty-coloured ſtone, which when broken, yields a white powder, is very fit for it, as all ſorts of marble, alabaſter, and ſlate, oyſter, and all other ſorts of ſea-ſhells, and alſo moſt ſorts of flints will make very good lime, but they are hard to be burned, *therefore ſhould be burnt in a reverberatory kiln*, otherwiſe are apt to run to *glaſs*. The harder the chalk or ſtone, the better the Lime; but then the more fire is required to calcine the matter. Chalk will generally burn and be well calcined in two tides, but ſtone, if hard, will take five or more. Stone-lime is much the beſt for land, and for all other uſes: dung, mud, or freſh earth mixt with it, makes excellent manure, and is the beſt way of ordering it for ſandy and gravelly land. The nature of Lime is to work downward like chalk, and is by ſeveral judicious perſons ſpread upon a lay, the year before it is to be ploughed up. It agrees with all ſorts of land, except a duſty ſand, and the ſtrongeſt clays. Land is improved by lime from two to fifteen ſhillings an acre. Ten quarters laid upon an acre, will hold five or ſix years upon land in tillage.

LIME-STONE.

The ſtone, when burnt, that makes plaiſter of Paris, in ſome places, goes by this name.

LIME

LIME or LINDEN-TREE,

Is of two ſorts or kinds, the male (which is by ſome thought to be only a fine ſort of elm) is harder, full of knots, and of a reddiſh colour, but produces neither flower nor ſeed, ſo conſtantly nor ſo mature as the female, whoſe fragrant bloſſoms perfume the air. The wood is firm, of a ſmall pith, and not ſubject to the worm. They are brought hither from Flanders and Holland, when at the ſame time our own woods produce them of their own accord, but of a ſmaller leaf, yet altogether as good, capable of being civilized and made more florid: they may be raiſed from ſeeds gathered in October, but better by ſuckers and plants, which are to be cultivated in all reſpects as the elm, *to which you are referred.* The fruitfulneſs of the ſeeds may be known by this token, that if on opening, they are full of a white flower, and not huſky, it is a ſign of their goodneſs.—Gather the ſeed in dry weather, air it in an open room, and preſerve it in dry ſand till the latter end of February; then ſow it in a pretty ſtrong freſh loamy mould, kept ſhaded and moiſt as the ſeaſon requires, and clear of weeds; at *two* years growth they may be taken up and planted out, being firſt diſcreetly dreſſed and pruned. They may alſo be propagated by branches lopped from the head, and peeling off a little of the bark at the end towards the tree, afterwards being covered with loam and rich earth, they will ſhoot forth fibres, and may ſeaſonably be ſeparated: but

to

to facilitate this and the like attempts, apply a ligature or bandage above the place when the ſap aſcends, or below it, when it deſcends, which will cauſe the truncheon to ſtrike the more, as well as ſtronger fibres. They may be laid from June to November. The ſhrubs, and thoſe leſs inclining to an erect poſture, are ſerviceable and very proper to thicken coppices, *&c.* yielding ſtrong ſhoots and good fire wood; on a rich, feeding, loamy ſoil, they grow with incredible ſpeed: theſe trees may be planted or tranſplanted at *eighteen* or *twenty* inches in circumference; their heads reduced to a *ſix* or *eight* feet bole; and ſo become proper and the moſt beautiful of all other for walks, avenues, *&c.* having an upright body, a ſmooth and even bark, an ample leaf, a ſweet bloſſom, and a good ſhade, planted at about twenty-five feet diſtance. They endure pruning well, but if they taper much, ſome of the collateral branches are to be ſpared to check the ſap, which is beſt to be done about Midſummer: the roots are to be ſpared, and not lopt upon tranſplanting. This tree grows almoſt on any grounds, laſts long, ſoon heals its ſcars, affects uprightneſs, withſtands ſtorms, and ſeldom becomes hollow. The timber is ſtronger and lighter than willow, and makes better coals for gun-powder than alder itſelf.

L I N G,

A ſhrub, otherwiſe called heath; alſo a ſort of ſalt-fiſh.

LIQUORICE,

LIQUORICE,

Is a ſhrub well known, that has a ſweet root. This plant delights in a deep, dry, and warm land, that is light and mellow, the deeper the land the better, for in the length of the root conſiſts the greateſt advantage of the commodity; and if the ground is not very good of itſelf, it muſt be mixt with plenty of the beſt and lighteſt ſoil: and therefore much planted about London, Godalmain in Surrey, Pontefract in Yorkſhire, in Northamptonſhire, and Nottinghamſhire, *&c.* In digging, the ground ſhould, *if poſſible*, be trenched *three* ſpit deep, and laid as light as poſſible. The moſt proper method is to dig it with the dung in Autumn, or beginning of Winter, and dig it again at planting-time, which will lay it light, and better mix the dung with the earth. The beſt ſets are thoſe called the crown ſets, or heads got from the very top of the root. The next ſort are the runners that ſpread from the principal roots, and have little ſprouts and ſhoots, which being cut about four inches long, make very good ſets, the branches (*if it prove moiſt weather*) may be ſlipped and planted; for they will commonly grow, and ſerve very well to thicken the other plants when thin; the ſets, when once taken out of the ground, are impatient of it again, and the time for planting is in February or March, and are to be ſet in rows by a line at about a foot diſtance, in holes made with a ſetting ſtick or dibble, deep enough to contain the plant, which is to

be

be covered up as ſoon as put in. If the ground is dry, water it immediately upon ſetting, and ſo continue for ſeveral days, till they have recovered their withered condition, and look freſh and lively: they are alſo to be hoed and kept clean from the time of planting, till taken up, which may be after they have ſtood *three* ſummers; for then the Liquorice weighs moſt, and will keep longeſt without loſs, but it is beſt to diſpoſe of it whilſt new and green, becauſe it falls in weight; the beſt time to take it up is in November and December. The profit ariſing from this root is very conſiderable, as from fifty to a hundred pounds an acre. Land fit for Liquorice, and let for that purpoſe, is worth five pounds *per* acre.

LOAD,

A burden or weight, drains for lands, as trenches, *&c.* are alſo called Loads, as is alſo a vein of oar in a *mine.*

LOAD of Hay,

According to the rules of huſbandry, is a ton. A ſmaller, or leſs Load, is called a *jagg.*

LOAM,

Is clay uſed by gardeners to graft with, mixt with ſtraw and horſe-dung; alſo a ſort of a ſticky land, as a mixture of clay and hen-mould, or clay and earth, *&c.*

LORD.

LORD.

BY the name Lord, I here conſider, comprehend, and mean all Noblemen and Gentlemen, as Owners and Proprietors of Lands, and Lords of Manors, and humbly beg leave to offer this book in general (but more eſpecially this paragraph in particular) to their mature and deliberate conſideration; in which ſome few things indeed are toucht upon by the ingenious Mr. Laurence, in the Duty of a Steward to his Lord, and many others omitted by him, of which ſeveral have come accidentally into my hands; therefore, all ſuch as more immediately concern the Lord, as they offer themſelves, I ſhall deliver with an ingenuous freedom in the following Sections, under the favour of my Moſt Worthy and Honourable Patron.

SECT. I.

I begin with a particular that highly concerns the intereſt of every *Nobleman and Gentleman, all Colleges, Guilds, Bodies Corporate, &c.* that if they are deſirous of having their eſtates well and orderly managed to their ſatisfaction and advantage, that they make choice of their ſteward, agents, *&c.* not by their appearance, but by their qualifications and abilities; that is to ſay, it is needful as well as neceſſary, that a ſteward writes a fair hand, and that he

he underſtands orthography, that his *Lord* may underſtand his meaning when he writes to him upon buſineſs; and alſo that he be a good accomptant, and that he has a tolerable degree of ſkill in the mathematicks, ſurveying, mechanicks, architecture, hydraulicks, *&c.* and particularly that he underſtands book-keeping: as to ſurveying, upon a diſpute ariſing in open fields about property, a ſurvey made by a ſteward has a greater effect in ending a diſpute than *ten* others made by *ten* other different perſons. In mechanicks, that he may be an help and aſſiſtant to the common artificers, ſuch as maſons, bricklayers, carpenters, *&c.* ſeveral of which may do the mechanick part very well; but for want of a proper education in theory, which puts the practical part in a right motion, very often a ſum is expended to little purpoſe, as has too often been the caſe, even in repairing farm-houſes, *&c.* too particular and tedious here to mention: as to arithmetick and book-keeping, ſo great a ſtreſs lies upon them, that I need not inforce their utility, ſince ſo many Noblemen and Gentlemen know already by experience, the deficiency thereof in ſtewards. As to orthography, I ſhall beg leave to inſert the following remarkable advertiſement in manuſcript, put up in the moſt public place in a village, by an agent to the Lord of the Manor.

Notis is here given if any one daoth fiend any young Livirits are dezier[d] to Bring them to——— Game keeper to———eſq[r] Shall be well rewarded

but

but if the Carrey them to any outher Place and hereafter Be provd ſhall Suffor the Law and if any man Will give Notis to me of the Same So that it Be prov[d] Shall receve Ten Shillings Beſides alowed By act of Parlement and Likewize yong Partridge or Egs the Same

SECT. II.

In this I beg leave to inſert and ſhew another great failing, which is, that of advancing menial ſervants to the office of a ſteward, that are not duly qualified, of which the following is an inſtance.

There was a poſtillion advanced to the office of a ſteward in the following manner. While in this low ſituation he behaved well, learned his A. B. C. of the *butler*, who alſo taught him to write his name, and in a little time could do it tolerably well in a print hand, nay, in time he wrote a print hand ſo well as to be able to ticket the caſks in the cellar: after ſome time he was made coachman, could cut the figure of 8 in ſmacking his whip, and by a certain motion, or rather ſpring of it, would take a ſtraw out of a dirt wall three times together, and not miſs; nay, even when upon the coach-box, and on full ſpeed, could by the elaſticity of a certain whip of his own projecting, take up a fowl, or almoſt any thing within its reach. In this ſituation he continued ſome years, drove with a great deal of care, improved himſelf

ſelf in *letters*, could write a bill of his outgoings, and make a ſum total, give a diſcharge upon receipt of it, ſpeak good horſe language, and had ſome notion of ſpeaking well to the *painters*, would curſe the poſtillion with an *air*, and gave the wheel-horſes the pretty names of *Gooſeberry* and *Hard-arſe*; when he gave them the whip upon the rump, would fetch the gutteral ſound of hoay, hoay, up the rough artery, as if his lungs was a curtal-bag: he ſet his hat well, ſwore upon a proper accent. In ſhort, he performed every thing with propriety, and an uncommon gracefulneſs, would turn off a horn of October, and give a genteel hem after it; and at watering, *&c.* would whiſtle a horſe till he drank or piſſed to ſome tune. He likewiſe taught a large Dane-dog he had (*who frequently rode under the coach-box*) to play as many tricks as an Indian baboon. When he drove his——out to take a *dinner*, would ſpread a napkin on ſome clean ſtraw in the ſtable (for he always attended his *cattle* himſelf) take a piece of *ham*, or ſomething of an high reliſh, and two or three *jacks* of October, which he would carry off as clean as a foot-ſoldier would a *canteen* of ſmall-beer made from wheat bran. In fine, he behaved ſo well, that he merited ſo much the good will of his *lady*, that one day, John, ſays ſhe, I have often thought of advancing thee, and as often mentioned it to your———. Here is Mr. ——the ſteward to the———eſtate, is almoſt ſuperannuated and no *ſon* to ſucceed him, what think you

of that———? replies John, with his wonted modeſty, M——m, I have thought of ſuch a thing; but then thought it too great a favour to aſk, but M——m, it is what I could do perhaps as well as another, and if I ſhould be ſo fortunate as to ſucceed, your *ladyſhip* may depend upon my utmoſt endeavours in that capacity alſo. John ſucceeds (Mr.———) marries the houſe-keeper, as ſoon as poſſible takes three or four hundreds a year of the *beſt* land in the lordſhip into his own hands, buys horſes for his———and moſt of the nobility and gentry in that part of the country; his wife brings him an only daughter, who is brought up at a French ſchool, dances very fine, and plays as fine as any young *lady* on the ſpinet, *&c.* makes a grand appearance at the horſe-race and aſſizes, as genteel as Miſs———And John and Madam on a winter evening by the parlour fire often talk (*if it could be brought about*) to marry Miſs with *Maſter*———the *counſellor*.

I would not be underſtood, that an honeſt, faithful ſervant is not to be preferred by his *lord*, but on the contrary think, he ought to be raiſed according to his capacity; but that, not one of John's capacity be made ſteward to———thouſand pounds *per ann.* But where a ſervant is really as capable as another perſon, why he ſhould not be preferred to ſuch a truſt, I think there can be no objection.

N. B. *It would have been honourable as well as reaſonable to have preferred John; but then it would have been*

been proper to have preferred him in his own way, by letting him a farm, &c. For generally ſuch ſtewards as John, are more avaricious and thirſty after gain, than thoſe of a better education and genius.

SECT. III.

I take the liberty of tranſcribing this ſection from Mr. Laurence's Duty of a Steward to his Lord, and think it well deſerves a place here.

" Says he, As I was, ſome time ſince, employ-
" ed in *ſurveying* and *valuing* a lord's eſtate in the
" North, curioſity led the nobleman himſelf to
" go along with me one day to look about him,
" to ſee how his eſtate lay, and to view the ex-
" tent and beauty of it. But before we entered
" upon buſineſs, the *ſteward* led us the way into
" his compting-houſe, or (as he rather choſe to
" call it) his *oratory*, or place of devotion; where
" he preſently ſhewed us (as lying at his right
" hand) South's and Waterland's ſermons againſt
" the growing HERESIES of this age; which
" ſermons (ſaith he, with eyes lift up, and a de-
" vout countenance) I read to my family every
" *Sunday* night, leſt they alſo be tempted to
" *deny the Lord that bought them.* And thus by
" ordering the matter ſo, as to appear to his
" lord at other times with a Friday-face for every
" day in the week, he anticipated all ſuſpicion of
" *knavery* or wrong; inſomuch that ſometimes,
" with a ſingular pleaſure, he would expreſs to
" me, *how happy he was in a ſteward, that had ſo*

" *good and orthodox a ſenſe of religion!* but alas! " before the lord left the country, he was told, " to his ſorrow, that *the zeal of his houſe had* " *even eaten him up:* for, upon a ſtrict enquiry " into his affairs, the lord was quickly made to " underſtand, that this godly ſteward had bought " no leſs than ſix hundred pounds a year, under " his very noſe, which he purchaſed by being " ſteward only fifteen years; and, by all accounts, " he was not worth ten pounds when he entered. " And the method by which he acquired theſe " riches is no leſs remarkable; for it was by re- " ceiving of the tenants what he was pleaſed to " call *income-money*; telling them, it was an an- " cient *perquiſite* of a ſteward: that is to ſay, " every year when he entered the tenant's name " anew into his book, he received a BRIBE, for " letting them hold their farms at a low *old rent*, " inſtead of an *improved one.* This was only one " part of his *unjuſt gain*; for he likewiſe, on pe- " cuniary conſiderations, ſuffered the tenants to " ſtock ſome of the beſt land with rabbits, con- " nived at their ploughing the beſt paſtures and " meadows, and conſented to the *paring*, and " *burning*, and *ſowing rape* upon the beſt land."

N. B. *What greater advantage the farmers in the North can make by ſtocking their beſt land with rabbits, I cannot tell; but in Northamptonſhire, &c. I apprehend they would think ſuch ſtock a very indifferent one to pay rent for their beſt land, much leſs to make an extraordinary advantage by it.*

SECT.

SECT. IV.

And Mr. Laurence further obſerves in one of his paragraphs, and has theſe words.

" I cannot forbear *(ſays he)* here to take no-
" tice, that noblemen and gentlemen, lie under
" great evils and inconveniencies, when they
" ſuffer themſelves to be perſuaded to employ
" *country attornies* for their ſtewards; becauſe it
" ſeldom happens that they are qualified for that
" truſt. And indeed, if the office of a ſteward
" be any whit rightly deſcribed in the following
" articles, and his DUTY fairly explained, it
" may at one view be eaſily diſcerned, that this
" caution is well founded. A ſteward's buſi-
" neſs is not ſuch as may be done, as it were, by
" the by: 'tis his whole employment, and a full
" one too; and therefore he muſt *hoc agere.* The
" attorney, if he has any character, has buſi-
" neſs enough of his own of the law, and there-
" fore ſhould not undertake the office of a ſtew-
" ard, which, in moſt parts of it, he doth not
" underſtand; neither will his employment let
" him: but I would always have the ſteward
" conſult the attorney in matters relating to the
" law, and to attend him at his *court-keeping.*

" I have known inſtances where a country-
" attorney has been ſteward to ſeven or eight
" noblemen, and others, and yet has done no-
" thing elſe but attend the court-keeping, and

" collecting of rents; by which means the te-
" nants have taken the advantage of doing what
" they would with their farms, quickly leſſen-
" ing the value of the eſtates by *over-ploughing*,
" *&c.* I have alſo *(ſays he)* obſerved on my ſur-
" veys, that theſe ſort of indolent ſtewards are
" commonly againſt the having their lord's eſtate
" ſurveyed and maped, for fear of opening a *new*
" *ſcene:* and yet their very warmneſs againſt *ſur-*
" *veys* and *improvements*, (calling the one *unne-*
" *ceſſary*, and the other *unpopular)* has been the
" occaſion of putting all *æconomiſts* upon them."

SECT. V.

There are ſeveral noblemen and gentlemen, *&c.* who *(if I give a right judgment)* often miſ-carry in this one point in the choice of their ſtewards and agents, which under their favour, I ſhall here point out; which is, that a *perſon* that can draw up a dog well with good lan-guage, according to rule and order, and is a good ſhot; who can after a ſhot, with a *luſty* voice cry *mark*, ſuch an one is too often looked upon as well qualified; and he that can leap a five barred gate, and take over a *quickſet-hedge* on full ſpeed after a pack of hounds, and come in firſt or ſecond at the death of the *hare* or *fox*, *&c.* is no leſs qualified than the former, and eſpeci-ally if to theſe are added a certain or remark-able elaſtic ſpring in caſting a net; and where theſe all happen to center in one man, they render him

him as compleat a ſteward as any in the kingdom; which perhaps are the beſt and only qualifications he has for executing and diſcharging his truſt; and when upon ſale or otherwiſe, there is occaſion for his dexterity and ſkill in meaſuring his *lord*'s timber, or any buildings, *&c.* he is obliged to employ a *carpenter, maſon, or ſome other mechanic, &c.* who perhaps has a friend to ſerve, if in *timber*; if in meaſuring work, *&c.* It is eaſy to gueſs what fine work will be made on't: which is as much as to ſay, aſk my brother, if I am a rogue. The like may be ſaid in all other branches of buſineſs, where meaſuring is required. In a proficiency in this branch of buſineſs, lies one of the greateſt abilities of the ſteward, and in which, he ſerves his *lord* in a particular manner, though perhaps he may be abuſed by others for it; but a ſteward's deficiency in this kind of knowledge, when the meaſuring is to be done as before-mentioned, I apprehend, is in ſome meaſure the occaſion that the *lord*'s are commonly backward in putting their *farm-houſes* in repair, the bills running high; when a good deal lies in the ſteward's inability, connivance, or want of ſkill in the management, and ſometimes perhaps in them all; which is a great injury both to *lord* and tenant. A man may be a very proper perſon for a ſteward with the firſt mentioned qualifications, if to it, the latter are added; but when the former are by much the beſt, he will cut but

a very indifferent figure in his *office*; but a deficiency in the former, will by no means injure him in the latter, but rather give more time and opportunity for a more ſtrict application to his *lord*'s buſineſs. Not that I would be underſtood, that a ſteward is to be debarred reaſonable diverſions (*or buſineſs of his own*) becauſe it makes his real buſineſs a diverſion too, by ſometimes relaxing the ſtrings; but that ſteward who makes his diverſions his buſineſs, his *lord* had better pay him his *ſallary* to do nothing at all, and another man to do his buſineſs as it ought to be done. And he that executes his truſt with JUSTICE and HONESTY, will not have much time upon his hands for his diverſions in the field, or a billiard-table, *&c.* in other places, or at home.

SECT. VI.

The *lord* that has copyholders of inheritance, it is adviſable, that he be not too ſevere upon them on account of harriots, ſuch ſeverity commonly tends to diſcourage the tenants in ſelling and buying ſuch eſtates ſo ſubjected, and therefore leſſens their more conſiderable income by *fines* and *ſurrenders*, which are no inconſiderable profits where there are a conſiderable number of tenants. And to enforce what I have advanced, I beg leave to inſert the following, as was communicated to me by a fellow of a college.

" That

" That to the college which he was a member " of, there belonged a manor, the tenants of which " were harriotable on death. A gentleman of for- " tune held an eſtate in this manor, conſequently " on whoſe death a harriot was due to the col- " lege: the college ſteward went to the deceaſed " gentleman's houſe to demand it, and pitcht " upon a fine *hunter*, for which the deceaſed's " ſteward offered the college ſteward twenty " guineas, which being refuſed, and the *horſe* not " immediately removed off the premiſes, on the " ſteward's taking *him* the next day, was found to " be ſtark blind, when the preceding day, *he* had " no defect or blemiſh."

How this ſhould happen, I leave to the conſideration and judgment of the Lords of copyhold manors.

Mr. Laurence alſo mentions an inſtance of a Lord of a manor, that would always take the harriots in kind, ſuch as jewels, plate, *&c.* but he found his miſtake, in a few years, by leſſening of the caſual profits by ſurrenders, *&c.* And further adviſes all Noblemen and Gentlemen, whoſe tenants hold their lands by *copy of court-roll* for three lives, not to let them renew, except they will agree to deliver up their copy, in order to alter their tenure, by converting it to *leaſe-hold on lives*. This method will put a ſtop to that *unreaſonable cuſtom* of the WIDOWS holding a life by her *free-bench*, which is a fourth life, not covenanted for in the copy, but only pretended to by *cuſtom*; which deprives

prives the Lord of an undoubted right of making the beſt, and *doing what he will with his own.*

SECT. VII.

Mr. Laurence ſays in article 21, p. 56. "There "ſhould no one circumſtance relating to the office "and duty of a ſteward be made a gain to him, "but the whole ſhould acrue, and ought to be ac- "counted to his *Lord*, whoſe wiſdom it ſhould be "to make the *ſalary* an ample reward for his *faith-* "*ful* labours."

In oppoſition to which, I beg leave to advance the following, which is, that a *ſteward* ought to have the uſual poundage on the ſale of timber, and all other woods that are ſold ſtanding, growing, or in the bulk, as a gratuity for his judgment, it being a cuſtom throughout the kingdom, and beſides, it being ſuppoſed, *and in fact is ſo*, that the perquiſite comes from the buyer, and no ways leſſens the value or ſum to the *Lord*.

SECT. VIII.

In this ſection I beg leave to obſerve to all *Lords*, that they ſhould exert themſelves in this particular, that the ſteward be always a *ſurveyor*, *ſupervifor*, or *overſeer* of the highways, and that the tenants be ordered to chuſe and appoint him under pain of diſpleaſure: for I have often obſerved, and *may ſay*, have always ſeen very indifferent management in this particular *article* of repairing the high-ways.

For

For remedy of this grievance, it is neceſſary that the farmers, *&c.* if occaſion requires, be made to do the ſtatute labour, and all other things conformable thereto, and that the ſteward attend the carriages, and ſee that the work be done to the beſt advantage; for it is common for the carriages to drop the materials near a ſlough, and the labourers, *&c.* will hardly give themſelves the trouble to rake them in, and too frequently the *ſurveyors* are as eaſy as themſelves; but when the ſteward is appointed one of theſe officers, he probably may have a principal power in his own hands, and as he is (*or ſhould be*) a man of judgment, will, with the common aſſiſtances well diſpoſed, and by all good management, ſoon bring the highways into better condition, and when they are made perfect and good, they will be maintained at an inconſiderable expence.

Nothing can be more diſagreeable, than a handſome *ſeat*, and no coming at it, any other ways than by being drawn, or rather plunged through a *ſea* of mire and dirt, till the Midſummer ſun has paved the roads. *Vide Highways.*

As to a ſteward being a commiſſioner of ſewers, it undoubtedly may be proper; but I apprehend theſe are much better managed than the former, being intruſted in more able hands than the common highways and private roads are.

SECT. IX.

Before I take leave, it may be proper to inſert the following, which is,

An

An agent employed by the *truſt* of a certain minor gentleman, draws up his accounts in the following manner.

Money I have paid to the beſt of my *knowledge* ſince I delivered in my laſt account, April 5th, 1757.

Is as follows.

	£.	s.	d.
Paid for building ———'s houſe	110	10	6
Paid for mounding ——	30	0	4
Paid labourers —— ——	45	15	0
Paid land-tax —— ——	170	4	8
Paid for the windows ——	1	10	0
Paid to the church, poor, conſtable, highways, &c. ——	5	10	2
Paid for repairing the *manſion-houſe*	40	2	6
Paid for other repairs ——	71	3	2
Total	474	16	4

I exhibit this only as a ſpecimen; but the whole being of the ſame compoſition, I have purpoſely omitted the remainder as not worth inſerting.

He produces no voucher or receipt, nor even inſerts particulars, which is certainly the moſt expeditious way of doing buſineſs, as generals only are took notice of, and exhibited in as general terms.

As to his receipts, he delivers all in one ſum total; notwithſtanding this, he has and does now paſs with a gentleman too popular here to be mentioned.

SECT.

SECT. X.

Poſſibly, the freedom I have here taken, may be by ſome thought too ſatyrical, and that I am prejudiced againſt the whole *rank* or *ſet*, and that I might have ſpared myſelf the trouble and pains, in expoſing their *inabilities*, *imperfections*, and *failings*; that what I have done may open the eyes of their *Lords*, and therefore it is ill-natured in me to meddle and diſturb a ſet of *men* that intended me no harm.——To this I anſwer, I expoſe no ſteward, neither am I any ways keen upon him: I expoſe only the pretenders to ſuch, and as it were *quacks*; and quacks in all profeſſions and employments, have always been the *butt* for *banter* and ridicule. And I dare venture to ſay thoſe *gentlemen* that are ſtewards will think themſelves obliged by the attempt: and I have often wondered, that *Noblemen*, *Gentlemen*, and *Bodies Corporate*, &c. who have had the *beſt*, *politeſt*, and the *higheſt* education this potent kingdom can afford, and yet after all, ſuffer themſelves to be impoſed upon by a parcel of illiterate and ſtupid agents, or rather quacks, that cannot determine betwixt right and wrong, unleſs it be in ſuch caſes where their own intereſt is concerned; beſides, ſuch frequently, and too often, lead their *Lord* into a bewildering maze of difficulties and perplexities, more than I can here enumerate. (*Vide Steward.*)

LUCERN,

LUCERN,

Is a plant highly commended for excellent fodder, and preferable to St. Foin, and is produced upon the moſt dry and barren land. It is managed and propagated after the ſame manner as the other, but the land is to be well dreſſed, by being three times ploughed, and every way laid clean: it is to be ſown about the middle or latter end of April, a ſmall quantity of oats may be ſown with it, as the ſeed is very ſmall; but the moſt common way now uſed by the curious, is, to lay the land very fine, and then to ſow it in drills at a foot diſtance, or thereabouts. About five pounds ſows an acre, the ſeed being very ſmall. It may be mown twice a year, and fed upon all winter; the hay is to be well dried and houſed, otherwiſe it will not keep well, but grows fuſty and mouldy: it is good for all ſorts of cattle, horſes eſpecially, and is much more nouriſhing than ordinary hay; given to cows, it cauſes them to give plenty of good milk. It is to be mixt at firſt with common hay or ſtraw, as is ſometimes done with clover: it is moſt adviſeable to mow it but once if the ſeed is to be preſerved; and the method is juſt to cut off the heads of it in a dewy morning, and put them into a ſheet for fear of ſhedding: when the ſeed is taken away, the halm is very rich fodder notwithſtanding: the graſs is an excellent purge for horſes in the Spring. An acre will keep three horſes all the year. The times of mowing are the middle of May, and latter end of June, when mown twice;

twice; but when for ſeed, about the latter end of June, or beginning of July.

LUPINES.

Theſe are a ſort of flat pulſe, reſembling a ſmall bean, and of an harſh and bitter taſte: they require but a little trouble, and improve the land on which they are ſown; they are a good manure for barren land, if, when in their full pride and bloſſom they are ploughed in under a broad furrow, no ſort of pulſe being endowed with a greater quantity of ſalt. They are excellent food for oxen, *&c.* Their time of ſowing is with other pulſes, and about two buſhels and a half will ſow an acre.

M.

MADDER,

Is a plant, the root of which is uſed by dyers, and has alſo phyſical virtues, therefore uſed in medicine alſo. It requires a very fat, rich, deep, warm, and well manured land, digged two ſpits deep. The right and beſt ſort has long ſtalks, and long trailing branches, rough and full of joints, and every joint ſet with green rough leaves, in form of an aſteriſm, or ſtar: the flowers grow at the top of the branches of a pale faint yellow, after which comes round green ſeed: the roots creep under the ground, and intangle one with another, and when freſh, are of a reddiſh colour. As to the plants, they are to be drawn at *two* or

three

three inches long, with their roots to them, which is to be done in March or April, not exceeding the firſt week in May; they are to be put into mould if carried far, and are to be ſet at about an inch diſtance, or ſomething more, and kept watering till the ſpring is advanced, except rains fall to do it; they are to be kept clean by hoeing, till the plants have got the maſtery of all weeds that annoy them. In three years, the crop will come to perfection; then take up the plants and dry them as hops are dried to a proper degree, the outſide huſk is to be pared off (*which requires ſome art*) and when done, will be worth about nine or ten ſhillings a hundred weight, which ſort is called *Mull-madder*; the ſecond ſort is called number O, and is much better, being the middle rind, but not ſo good as the third ſort, which is called *Crop-madder*, and is the very heart or pith of it, and is inclining to a yellow. Sometimes the beſt Madder is ſold at *eight* or *nine* pounds a hundred, when number O, will fetch no more than *ſix* pounds ten ſhillings, and ſometimes no more than *four* or *five* pounds a hundred weight, an acre of good Madder is worth from *two* to *three* hundred pounds.

N. B. *The ſeed is ſown on a ſpot of ground promiſcuouſly, and when grown to the above-mentioned ſize, to be drawn and planted as aforeſaid.*

MALT.

In this place, I do not pretend to teach the making of Malt, it being a thing well known already;

ready; but only give my opinion and ſentiments for the private making it in *Noblemen* and *Gentlemen's* families, as allowed by act of parliament. As to the equity of this act, I ſhall ſay but little, although enough might be ſaid to vindicate its legality againſt numbers of others that highly exclaim againſt it: all that I ſhall offer, is, that it is an encouragement to a decent hoſpitality; for,

Suppoſe a perſon of quality keeps no more than 12 ſervants, and the whole family contains 16 perſons, which at 5 s. *per* head, is 4 l. for the duty on Malt, which anſwers to the duty on 20 quarters to be ſpent yearly in that family; and ſuppoſing that 5 buſhels are put to a barrel of *beer* and *ale* upon an average, which is too little, anſwers to 32 barrels at 34 gallons each, or 16 hogſheads at 68 gallons each, ſpent yearly in that family in one year, which is not quite 3 gallons *per diem*, and divided among the 12 ſervants only, is not quite a quart each, and not a drop for hoſpitality, and not half enough for the ſervants themſelves, or at leaſt not half ſo much as they will expect where ſuch a family is kept, ſo that the more ſervants and the more hoſpitality is kept, the more is gained by this piece of frugality, and this is but one part of it; for ſuppoſing that the *Nobleman* or *Gentleman* grows his own barley upon the demeſne lands, kept in hand for domeſtic uſes (*or provided it is bought*) a quarter of barley will produce a quarter and half a buſhel of ſaleable Malt, ſo that it makes the advantage by ſo much

the more conſiderable: and an under gardener, &c. at the dead time of the year, when his other work does not call him, may make it, and this too is the beſt ſeaſon to make it in; a *ciſtern* that wets 5 quarters will be ſufficient, and a *malt-houſe* and *kiln* anſwerable to wet five times in a fortnight, diſpatches the work in a ſeaſon, that the making coſts the *Lord* nothing, and (*as he is ſure of a good commodity*) it will not be made from bad materials. To this I may add another advantage no leſs intereſting than the former, *viz.* where hounds are kept, the oatmeal may be made for the hounds and other domeſtic uſes; the kiln being ready, while the Malt is making, the oatmeal may be dried at a very ſmall expence during that ſeaſon by the ſame perſon, or the *dog-boy*, &c. By good management 10 to 20 *per cent.* may be ſaved, and hoſpitality no way abridged, as by no means a decent one ſhould be; but rather all lawful, juſt, and honourable means ſhould be ſtudied and made uſe of by the ſteward, to ſupport it, and not to prejudice and injure his Lord.

N. B. This kiln is always ready to dry provender, &c. and the Malt-houſe is a convenient edifice to lay any *materials* in out of the way; for moſt part of it will be at liberty, except *a month* or *two* in the year. And by making Malt and oatmeal, the Malt-duſt will be found very profitable; ſown upon the demeſne lands, the hulls of the oatmeal are proper, and good provender for labouring horſes, and ſaves that which is more valuable: and

to

to the before-mentioned frugality the following may be added, *viz.* in the corner of a field, on proper land for the purpoſe, let a *rood* or *half acre* be taken in for hop-ground, which may be dreſſed by the gardeners, *&c.* ſo that in effect, hops will be no article of expence. Much more might be ſaid upon this head; but what I have ſaid already may be ſufficient, for a rational man may know by a *ſhilling* how a *guinea* is coined.

N. B. Since the above calculation was made, an additional duty of three-pence per buſhel is laid on Malt, and likewiſe an addition of two ſhillings and ſix-pence per head on Malt compounders, nevertheleſs my propoſition and the proportion is the ſame.

MALT-DUST,

Enriches and greatly improves *barley*, it is ſown by hand when the grain firſt appears. Twenty buſhels will ſow an acre; but it holds but one crop.

MALT-MILLS.

Of theſe there are ſeveral ſorts, as the ſtone-mill, the ſteel-mill, which I ſhall ſay nothing of, they being ſo well known; but there is another ſort of mill, which for ſake of diſtinction, I call the cylindar-mill, which is the moſt proper for the hand, having this peculiar advantage, that it does not grind any of the malt to powder, but only ſqueezes and flats it according to the diſtance the rollers or cylindars are ſet. It is made much like a hand cyder-mill, ſave that the rollers of this

is wood, as that of the other is iron. I obſerved at Marlborough, Ramſbury, *&c.* in Wilts, where the fineſt beer in the kingdom is made, that the malt is ground on cylindar-mills, and that the worſt comes off very fine, and withal the *goods* or *grains* ſo poor that they are but of little ſervice to hogs, and in ſhort they will hardly eat them; beſides theſe ſorts of mills make great riddance, they are alſo very durable, and ſeldom out of repair; but where oatmeal is made, malt may be ground on the ſame mill with very good ſucceſs.

MANOR,

Is a French word, and ſignifies the houſe where the Lord reſides, or rather from *manendo*, of abiding there, becauſe the Lord did uſually reſide there. It is rather a noble ſort of fee granted partly to tenants for certain ſervices to be performed, and partly reſerved to the uſe of the Lord's family, with juriſdiction over his tenants for their farms. That which was granted out to the tenants are called *Tenements*, thoſe reſerved to the Lord are called *Demains* or *Demeſne:* the whole fee is termed a Lordſhip, of old a Barony; from whence the Court, that is always an appendant to the Manor, is called *the Court-Baron.* Touching the original of the Manors, it ſeems that in the beginning there was a circuit of ground granted by the King to ſome Baron, or man of worth, for him and his heirs to dwell upon, and to exerciſe ſome juriſdiction more or leſs within the compaſs, as he thought good to grant, performing ſuch ſervices, and

paying

paying ſuch yearly rent for the ſame, as he by his grant required, and that afterwards this great man parcelled his land to ſome meaner men, enjoining them ſuch ſervices and rents as he thought good, and ſo as he became tenant to the King, the inferiors became tenants to him: and according to this cuſtom, all lands holden in fee throughout France, are divided into *fieffs* and *arrieri fieffs*, whereof the former are ſuch as are immediately granted by the King; the ſecond, ſuch as the King's *Feudataries* do again grant to others. In theſe days a Manor rather ſignifieth the juriſdiction and royalty incorporated, than the land and ſite. For a man may have a *Manor in groſs* (as the law termeth it) that is the right and intereſt of a Court-Baron, with the perquiſites thereunto belonging, and another or others have every foot of the land. A Manor may be compounded of divers things, as of a houſe, arable land, paſture, meadow, wood, rent, advowſon, Court-Baron, and ſuch like; and this ought to be by long continuance of time, beyond the memory of man. For at this day a Manor cannot be made, becauſe a Court-Baron cannot now be made, and a Manor cannot be without a Court-Baron, and ſuitors or freeholders, two at the leaſt; for if all the freeholders, except one, eſcheat to the Lord, or if he purchaſe all except one, there his Manor is gone as aforeſaid, although in common ſpeech it may be ſo called. And manſion, as the word now implies, ſignifies the Lord's chief dwelling-houſe within his fee, otherwiſe called *the Capital Meſſuage*, or chief Ma-

nor-place, and that which in ancient Latin authors was called *Hida*, was afterwards called *Manſus*, *i. e.* as much land as one plough could till in a year. (*Vide Cowel's Law Dictionary.*)

MAPLE,

There are ſeveral kinds of this tree, as the *French-maple*, the peacock's tail, *&c.* but the beſt foreign ſorts that would be worth propagating here, are the Virginia and the German Acer. They are produced of keys like the aſh after a year's interment. (*Vide aſh.*) They affect a dry and ſound mould, and commonly grow in woods and hedge-rows. The Maple is alſo propagated by layers, ſuckers, and roots. If the boughs are ſhread up to a head, it cauſes it to run to a conſiderable height in a little time: the beſt time to lop it in is about Candlemas. It is hurtful to plants, *&c.* that grow under it; becauſe it ſheds a clammy dew upon them. It is ſeldom ſuffered to grow large, being cut down with the hedge wherein it grows as underwood, which is not to be ſuffered in a ſtreight tree, for it is valuable timber, much better than beech, and for the fineneſs of the grain, but little inferior to cedar. I am ſurprized that ſo valuable and uſeful a wood ſhould be ſo much neglected, but I ſuppoſe ſuch neglect is owing to want of judgment and experience.

MARLE,

Is a ſort of fat earth, which being laid on land, cauſes a great fertility: of this there are ſeveral ſorts,

ſorts, in Cheſhire and Lancaſhire there are reckoned no leſs than five different kinds: *Firſt*, the *Cotwſhut-Marle*, of a browniſh colour, with ſome blue veins in it, mixed with ſome ſmall lumps of chalk or lime-ſtone. *Second*, *Stone* or *Slate-Marle*, which is nothing but a ſort of ſoft ſtone or ſlate, of a blue colour, and diſſolves with froſt or rain. *Third*, *Peat-Marle*, or *Delving-Marle*, this is cloſe, ſtrong, and of a very fat unctuous quality. *Fourth*, *Clay-Marle*, which much reſembles clay, and is brother-german to it, only more fat, and often ſmall chalk-ſtones are found in it. *Fifth*, *Steel-Marle*, commonly found at the bottom of pits, which is naturally apt to break into cubical bits.

It is cold in nature, but improves land ſurprizingly, and works downwards like lime. Its goodneſs or badneſs is not ſo well known by the colour, as by the purity of it; for the pure will break into ſmall ſquare bits like a *dye*, otherwiſe it is ſmooth like *lead-ore*, without ſand or gravel in it. If it flakes like ſlate-ſtones after a ſhower, or being expoſed to the ſun, is turned into duſt (*and not congealed into a tough clay*) this betokens its fertility; as to its ſlipperineſs and unctuous quality, that is not always a true ſign of its goodneſs; for it is found by experience, that very good Marle is to be met with, that feels quite dry and ſhort, but by being watered becomes ſlippery; this ſort is no ways inferior to any of the before-mentioned. Marle is commonly laid upon the land in ſmall heaps as dung, and afterwards ſpread as dung.

In ſome land this will hold ten, in other twenty, and on ſome land thirty years, and is an excellent manure to fix light ſands, &c.

MARLED-LANDS.

The beſt way is, to ſow ſuch lands under furrow, for ſuch land if well huſbanded, becomes mellow and hollow, which will occaſion the ground to ſink from the roots of the grain. When land lies on the ſide of a hill, be ſure to lay Marle enough upon the upper part, for the rains will waſh it down to the lower, therefore the leſs may be laid there: when Marle ſaddens the land too much, and makes it too ſtiff and binding, the beſt way is to add ſome dung to it, and lay it down with proper graſs ſeeds for three or four years, and then plough it up, and it will do exceeding well: the ſame may be done upon a lay. In marling-lands, it is proper to underſtand and know the juſt quantity proper to be laid upon an acre; but it is better to lay too little on than too much; for in this caſe it is eaſy to add, but not to take away, therefore the ſureſt way is to try a ſmall quantity firſt, unleſs land of the ſame quality has been tried before. For hard and binding ground, the beginning of Winter is beſt to marle in; but the Spring ſuits better with light, ſandy, dry and gravelly lands, though it may be proper to try both: a diſpute has aroſe, whether Marle has any fertilizing quality in itſelf, becauſe it takes no effect the firſt year. Mr. Laurence ſays, that in

Stafford-

Staffordſhire, three hundred loads are laid upon an acre, which is a ſurprizing quantity; for ſuppoſing a yard ſquare only be carried at a load, then 300 cube yards will be laid upon an acre: a cube yard contains 27 feet, and one foot 1728 ſolid inches: ſo that 27 x 1728 = 46656 the ſolid inches in a cube yard, which x by 300 = 13996800 the ſolid inches in 300 loads or cube yards, and 220x22 = 4840 the yards ſquare in an acre x9 = 43560 feet x144 the inches in a ſuperficial foot = 6272640, and 13996800 ÷ by 6272640 = 2, 23, *&c.* inches thick, *viz.* almoſt two inches and a quarter thick. Certainly the land muſt be very light and ſandy, that will bear ſuch an incredible quantity; for here it is not properly uſed as manure; but its uſe is to bring or produce a new ſoil, for two inches and a quarter is near as much as the depth of the furrow made by the plough. Land ſo marled, will hold from twenty to thirty years; but land of a ſtronger quality will not bear ſuch great quantities; ſo that it will not hold more than fifteen years: it is alſo neceſſary to give the land a ſprinkling of dung upon the wheat ſtubble, every crop of wheat that is taken off; it will not only keep the land in perfect heart, but alſo looſen the binding quality of the Marle.

MARLEPIT-PUMP.

The uſe of this *machine* is to diſcharge the water out of marle-pits, ſtone-pits, *&c.* The pump here

here deſcribed is not only the cheapeſt, but alſo the beſt for the purpoſe, and is made thus: take four boards an inch thick, which are to be well joined and nailed together, and if the edges are plated with iron, it will be the better. Theſe pumps may be made ſingle or double, either with a handle for one man, or a handle common to the double pump, which will be common to two men to work with. This pump conſiſts but of one column, which is of one ſize quite through; at the lower end is a valve where the water enters, and to retain it when in: a valve is fitted to the bucket, and to the capacity of the pump, which opens and ſhuts as the bucket is moved up and down; ſo that the bucket being let down to the valve, by lifting up the ſweep of the pump, it raiſes the whole column of water contained in the capacity of the pump, and throws it out of the ſpout. This pump is to be made of any length and capacity at pleaſure, only the longer the pump is the leſſer the cavity ſhould be, by reaſon of the weight of water, and a ſingle man may work one of theſe pumps of twelve feet long, and twelve inches ſquare, which will ſoon void a vaſt quantity of water, *and with a great deal of eaſe, becauſe the motion is in water without ſuction.* Pumps thus made, are not ſubject to continual repairs, ſuch as the leaſt defects in ſucking pumps are conſtantly requiring, therefore the moſt proper for foul waters.

MARSH-

MARSH-LAND,

A ſort of grazing ground which lies near rivers and fens. As to lands lying near rivers, to improve them to the greateſt advantage, is by overflowing them, which brings the ſoil from the *upper lands* upon them, ſo that no other amendment is required, although conſtantly mown; *but in ſome places the farmer ſows his water meadows with peate-aſhes once in two or three years.* The greateſt inconveniency of theſe lands, is their being ſubject to Summer floods, which are brought from the adjacent hills. Although the richeſt lands generally lie near rivers, yet there is great danger of the crops being ſpoiled by the above accidents; where ſuch land lies open, and the floods cannot be diverted, the beſt method to be taken, is that of incloſing them, and keeping them for paſture. But the moſt advantageous ſort of *Marſh-lands*, are thoſe that may be overflowed or laid dry at pleaſure, theſe may be improved in Winter, and the Summer torrents kept out when the graſs is long. That ſort of Marſh-land lying near the ſea is very fit for grazing, which for the moſt part is very rich and good; but as ſuch land generally lies very flat, it is neceſſary to keep off the water by drains, *&c.* from overflowing them. (*Vide drains.*) Two principal things are commonly wanting in theſe lands, that is to ſay, freſh water and good ſhelter, which may be pro-

procured by making proper ponds to hold rain-water, and by planting proper trees and hedges. The ſea-water is kept back by walls, banks, *&c.* which often prove expenſive. Theſe lands fatten cattle ſooner than any, and preſerve ſheep from the rot.

MASLIN,

MESCELIN, or *Meſlin*, is corn that is mixt; but is generally underſtood to be a mixture of *wheat* and *rye*.

MAST,

Is the fruit of wild trees called *glandiferous* or *maſt-bearing*, ſuch as beech, oak, cheſnut, *&c.*

MEADOW, or *Meadow-ground*,

Is that ſort of land that will yield plenty of graſs, for paſture or hay. As to meadow-land, too much or too little water is equally prejudicial to it, therefore the beſt land for paſture or meadow is ſuch as lies low, or hanging grounds, or any other rich ground with a moiſt bottom, eſpecially if ſound, and where any rivulet, little brook, or ſome conſtant running ſpring may eaſily be brought over it at pleaſure, and where there is a proper deſcent to draw the water off upon watering or overflowing it; for by the water ſtanding too long breeds the ruſh, *&c.* Meadows lying

lying ſo, are much better than thoſe lying ſituate by great rivers, where the crops are often loſt, or at leaſt ſpoiled. The greateſt inconveniency that attends up-land meadows is, that they ſtand in need of frequent ſuper-inductions, or of being often fed upon, which thoſe lying by great waters do not; but then the hay produced by the up-land meadows is finer, and much preferable to that produced by thoſe ſituated by the ſides of great waters, rivers, *&c.*

The improvement of up-land meadows is much the ſame with that of arable, only with this difference, that as dung laid upon ploughed ground, is either ploughed in under the furrow, or let in with harrows; ſo that laid upon paſture or meadow is to be let in with a harrow turned *vice verſa*, being drawn with black-thorns, or with a gate drawn with the ſame or other buſhes, *&c.* And that all dung and compoſt deſigned for paſture and meadow land, is to be ſpread over it in Winter, that the *rains* may waſh the fatneſs and ſoil thereof into the roots of the graſs, before the ſun exhales and dries that richneſs up. Some recommend rich, fat ſoil or mould to be mixed with the dung, rather than dung alone; becauſe it more readily and ſooner comes to the roots of the graſs, and incorporates itſelf with the earth. A good compoſition is, rotten dung, and the bottom of hay-mows and hay-reeks, upon account of the mould it is compoſed of, and the hay-ſeed mixed with it, which will not only improve the

land

land, but alſo increaſe the graſs; for which reaſon proper care is to be taken, that no hay-ſeeds be mixed or ſcattered upon the dung-hills intended for corn-ground; becauſe it will make the land foul, breeding both graſs and weeds.

As to meadows overflowed by ſea-breaches; though ſalt moderately uſed is an incomparable improvement of freſh lands, yet too great a quantity kills all ſorts of plants, and is very deſtructive to vegetation. Having therefore ſtopt the breaches, make trenches to draw the ſalt-water into ſome low place, then with an engine, *&c.* it may be thrown over the bank into the ſea, or other waſte ground, unleſs ſo ſmall a quantity is left, that the ſun will dry up. Then as much freſh mould as can poſſibly be got, is to be laid on to abate the over ſaltneſs of the ſoil, after which plough it four or five years, to let the air and rains into the ſoil to freſhen it.

N. B. The beſt grazing land is commonly ſtocked with the largeſt oxen, cows, and ſheep, the middle ſort with a leſſer ſize, and the more barren with ſheep alone; the quite heathy and rocky with goats, and the very worſt with rabbits, although goats will feed and improve upon as bad land as rabbits will: nothing can be more prejudicial to a *farmer*, than to ſtock his land with cattle that are larger than it will bear, or that will not grow fat upon it.

MEAR,

MEAR,

A balk or furrow in a field, that parts the land of one man from that of another, alſo maſhy ground: and *Meer-ſtones*, are ſtones ſet up for *land-marks* or bounds in open fields, as alſo ditches, banks, *&c.* made, or ſtones ſet up between one *manor* or *lordſhip* and another.

MILLS.

By Mills I here mean all thoſe that are uſed for the grinding of corn, making of paper, *&c.* ſtanding upon rivers and ſtreams of water; theſe Water-mills are for the moſt part very injurious and hurtful to the adjacent meadows, it being a thing too well known, that a great many of the meadows and beſt lands in the kingdom are more or leſs affected and injured by Water-mills, which often prevent the draining and drawing off the ſtagnating waters, and greatly tend to ſpoil ſuch lands, and hinder the great advantages which the meadows lying near rivers, *&c.* might receive by being overflowed in the proper ſeaſon by *freſhes* and white-waters that have waſhed great *towns* and *villages* lying above them. And Mr. Laurence obſerves, that Water-mills have been the cauſe of the over-flowing of ſome brave and conſiderable eſtates, even to their *utter ruin*, and have prevented the improvements which might be made upon others, and moreover have proved a dead weight upon the good deſigns of making

making rivers *navigable*. Mills are certainly very uſeful; but generally ſpeaking, are the worſt part of an eſtate, eſpecially where the cuſtom prevails to oblige the landlord to find Mill-ſtones, wheels, and all other implements and utenſils belonging thereunto, which are continually wearing out; ſo that there is a continual call for a freſh ſupply. In order therefore to prevent this conſtant demand and annual rent-charge, over and above the charge of the edifices and buildings upon the premiſes, it is neceſſary to agree for the beſt improved rent, and at the ſame time to grant a leaſe for a conſiderable term of years, therein obliging the miller by covenant, to be at all the above-mentioned charges, having firſt put the Mills, and all other appurtenances, into good repair, that he may make the beſt of his bargain.

MOLES,

Theſe are pernicious enemies to huſbandry, by looſening the earth, and deſtroying the roots of corn, graſs, plants and herbs, as alſo by throwing up hills, to the no little ſpoiling of corn, paſtures, *&c.* The beſt way of taking them is with the common trap, which being ſo well known, I forbear the deſcription; but the ingenious Mr. Blythe relates, that a certain year about March, one Mole-catcher and his boy in about ten days time, in a ground about ninety acres, being juſt laid down from tillage, took about three buſhels, old

are old and young, they were hardly to be numbered; moſt of them being young and naked; and this he only did by caſting up their neſts, which are always built in a heap of twice the ſize of the others, and eaſily diſcerned; and when the old ones came to look their young, he would preſently ſnap up them alſo: at another ſeaſon beſides March, which is their time of breeding, ſuch ſucceſs is not to be expected: and he likewiſe ſays, that Moles by watering are drowned, or driven up into ſo narrow a compaſs, that they may be eaſily taken; *ſays he*, I have known them to have been forced to leave their holes to run upon the turf to ſave their lives from the water flood; but this muſt be upon land that lies convenient for over-flowing. I forbear to mention the method of driving them, for this is only preſenting that to your neighbour, that is deſtructive to yourſelf, and by no means takes away the cauſe.

MOORISH-LAND.

Vide Gouty land.

MUD,

In ſome places there is to be found very rich Mud, endowed with a very great fruitfulneſs, improving land ſurprizingly, and coſts nothing but the labour in getting it up; being the ſoil of the paſtures and fields, commons, roads, ways, ſtreets, and back-ſides, all waſhed down by floods, rains,

&c. and ſettling in ſuch places where it meets with reſt: the reſidence of all channels, pools, ponds, lakes, and ditches are alike fertile, where any quantity of water has a paſſage.

N.

NEAT-HERD,

A keeper or attender of neat cattle, as an ox, cow, ſteer, or heifer, and in ſome parts of the *kingdom*, ſuch are called Neat-cattle.

NURSERY,

As to the ſeeds as I here call them, thoſe are beſt which are perfectly ripe, heavy, and ſound, and eaſily ſhaken from the tree; but they are better gathered about November, when ready to fall of their own accord, or taken from the tops of the moſt thriving and youngeſt trees; if the ſituation of the Nurſery or Seminary be too cold for ſowing in the Autumn, acorns and other maſt may be kept till the Spring following, being barrelled up in *dry* ſand, *ſtratum ſuper ſtratum*, during the Winter, at the end of which they will be found a little ſhot or ſprouted: then being carefully ſown without injuring the ſhoots, they will take as well as if ſown in the Autumn, and by this means eſcape the vermin which are apt to devour thoſe ſown before Winter; but then, thoſe ſown in the Autumn, ſtand the Summer heats better than thoſe ſown in the Spring, which will require

quire frequent waterings. If neceſſity requires large quantities of *ſeed* and *maſt* to be preſerved, chuſe a proper plat of ground, and with any refuſe boards raiſe it about three feet, and lay the firſt *ſtratum* with fine dry *earth*, another of ſeeds, as *acorns* or other *maſt*, *keys*, *nuts*, *haws*, *holly-berries*, *&c.* promiſcuouſly or ſeparate, as is moſt ſuitable to the deſign, mixing a little dry earth with every lay of the *maſt*, *&c.* and ſo proceed S. S. S. 'till the whole quantity is laid in, then cover the top cloſe and ſloping to ſhoot off the wet, or they may be laid up in the ſame manner in ſome out-office, to preſerve them from the rigour of the Winter. If the *ſeeds*, *&c.* are gathered in moiſt weather, let them be laid thin to dry, and often ſtirred. If they ſpire before they are ſown, be ſure to commit them to the earth before the ſpire grows dry. Frequently water, unleſs plenty of rain falls.

If the ſeeds and kernels prove extraordinary dry upon *ſowing*, lay them twenty-four hours in milk and water, (*or water only*) impregnated a little with cow-dung, which will give them a ſpirit to ſprout the ſooner, eſpecially if any thing has retarded the ſowing in due time.

In chuſing *ſeeds*, let them not only be from fruitful trees, but ſolid and fair, and not altogether pitched upon for their largeneſs, but for their fairneſs, clearneſs, and brightneſs.

Being thus provided of *ſeeds*, woods may be raiſed, by ſowing them promiſcuouſly, according to what they are intended to be; the mould being pre-

pared according to art, as ſhall be hereafter ſhewn.

Mr. Cooke, in his treatiſe of Foreſt-trees, ſays, That if keys, ſtones, nuts, kernels, or ſeeds, be porous, ſpungy, taſte little, or be mild, ſuch ſeeds are to be ſown as ſoon as ripe; and of this ſort, he reckons the ſeeds of elm *(if elm has any ſeed)* *ſallow*, *poplar*, *&c.* Such as are mild in taſte, but of a cloſe ſkin or ſhell, may be kept till the *Spring* or longer, if temperately dried, or kept dry, as *acorns*, *cheſnuts*, *&c.* but nevertheleſs, the *Spring*, is a proper ſeaſon to ſow them in.

Seeds, *&c.* of a hot or bitter taſte, cloſe ſkins or ſhells, may be kept twelve months after they are gathered, if ripe, dry kept, and the pulpy part taken clean off when ripe; but haws are to be interred with their pulp on. The pulp contributes nothing to the growth of the ſeed, but rather putrifies and diſſolves it. The keys and ſeed of aſh, *&c.* are hot and bitter, yet beſt to be ſown the next ſeaſon after gathering, although ſeveral of them lie dormant near two years before they riſe, but if ſown early, they will come up the Spring following, *ſome few only excepted.* Seeds of this nature, may be known by their hanging long upon the trees, as the *aſh*, *holly*, *&c.* hang long on the tree, and lie long on the ground. The *elm*, ſallow and ſycamore fall ſoon, and ſoon come up.

The ſhape and weight of *ſeeds* give information how they are to be ſet; moſt of them on falling lie

lie on one ſide with their ſmall end to the earth, therefore that poſition is beſt to ſet any ſtone or nut in, it being that poſture nature has intended: the ſeed of any tree native of England, firſt puts forth a root at the ſmall end, and when that has laid hold on the ground, then it puts forth the ſhoot for the tree at the ſame place from whence the root ſprang, ſo that it is beſt to lay them on their ſides in the earth; if they are heavy ſow or plant them the deeper, if light *ſeed*, cover them with little mould and thin, laying the flatteſt ſide downward as they would lie on a table.

The ground for the Nurſery being pitched upon, let it be cleared of all manner of ſhrubs, bramble, fern, and all other obſtacles whatſoever, and withal let it be well fenced, and let it be broken up the Winter before it is to be ſown or planted; in order to mellow it, eſpecially if it be clay, the furrow muſt be as deep as for *wheat*, or rather trenched with a ſpade, which is better; give it another ſtirring immediately before ſowing, when it is to be diſpoſed into ſmall narrow trenches of four or five inches deep in even lines, and at two feet diſtance, into which furrows the ſeed is to be ſcattered, but not too thick; when they are to be covered with a fine-toothed harrow, but a rake is by much the beſt; or plant them as beans, eſpecially thoſe of the nuciferous and maſt-bearing kinds, every ſpecies by themſelves, which is to be done the latter end of October, or before St. Martin, for the autumnal ſeaſon; and in the lighter grounds for the

vernal ſowing about February, or at fartheſt before Lady-day; ſix buſhels of acorns will ſow or plant an acre *(and other maſt in proportion)* at about twelve inches diſtance, upon the line.

When the plants begin to peep, or when they are all up that you expect, earth them up, eſpecially after great froſts: when the plants are an inch high or more, and in a moiſt ſeaſon, draw them up where they are too thick, and reduce them to a regular order, and ſet them in other furrows or beds, or otherwiſe plant them in double foſſes where they may remain till fit for tranſplanting out for good. The ſeedlings ſtanding in the manner aforeſaid till June, may be dug about ſlightly, or pretty deeply hoed, and a little half rotten litter, fern, or bean-hawm, or old leaves be ſcattered among them, to preſerve the roots from the intenſe heat of the Summer ſun, and to retain the rains and dews that fall upon them; after this has lain the Winter, and become rotten, it would be proper, the March following, to chop it all into the earth; let this be done for two or three years ſucceſſively, for till then the ſubſtance of the kernel will hardly be ſpent in the ſubſtance of the growing plant: but then the *ſize* of the plants inviting, they may be carefully tranſplanted, by taking them up by the roots, and cutting the ſtem within an inch of the ground; (*if the ſort will admit of the knife*) ſetting them where they are to continue at proper diſtances, as ſuppoſe, *forty feet*; the intervals may be planted with *aſh*, without prejudice to the

oak

oak. Some repeat cutting down the ſecond year, if ſo, it is to be done with a keen inſtrument, for fear of diſplacing the roots; ſerve thoſe the ſame that are left untranſplanted, except they be very thriving, if ſo, prune off the branches, and ſpare the top, by which the ſap will be obliged to aſcend upwards, and to produce fine ſtraight ſhoots, infinitely preferable to thoſe not ſo managed. Thus the oak will riſe to excellent timber, ſhooting into ſtraight and ſingle ſtems; and the *cheſnut*, *aſh*, *&c.* multiply into poles, which may be reduced into ſtandards at pleaſure. On every tranſplanting out of the Nurſery, improve the remainder by a due ſtirring and turning up the mould about the roots of ſuch left ſtanding.

If a large plantation is intended, the eaſieſt, if not, the beſt way is to ſow the acorns confuſedly or promiſcuouſly in furrows, about two feet aſunder, covered two or three inches deep; cover them the firſt year with *fern*, keeping them clean for three years, which is to be all their culture, unleſs they are tranſplanted. In Nurſeries they are to be cut within an inch of the ground, then left to ſtand till March the ſecond year, when they are to be diſbranched to one ſingle upright ſhoot, whether they are to ſtand or to be tranſplanted.

Some ſorts of trees are propagated by cuttings and layers; the ever-greens about the latter end of Auguſt, the others about the latter end of October, or about St. Martin, when they will be aſſiſted by the ſap; the performance is, by ſlitting

the branch a little way (*as is done in plaſhing hedges*) then lay it half a foot deep in the earth; if it does not eaſily comply, peg it down with a hook or two, and when compleatly rooted, make an amputation, and plant it in its deſigned place. Others twiſt the part, and then lay it down as before.

For cutting, the ſame ſeaſon will do: take thoſe about two inches round, which are to be ſet about a foot in the ground, and about nine inches above it. If of ſoft wood, ſuch as willows, poplar, *&c.* take large truncheons and tall, ſuch as will ſoon be out of the reach of cattle. If of harder wood, take thoſe that are young, ſmall, and tender; if ſuch as produce a knur or a burry protuberance, ſet that part into the ground: making the whole ſo wide, and pointing the end of the cutting ſo ſmooth, that in ſetting it, the bark be not ſtripped off; the other end is to be cut ſlooping: the earth is to be moiſtened, but it is better to fill the hole with water, and tread the earth cloſe; by ſuch management ſucceſs is ſeldom wanting.

Trees may alſo be propagated by the roots of thriving ſappy ones; to effect which, obſerve the following directions: early in the Spring dig about the foot of the tree, and finding ſuch roots as with a little cutting may be turned upwards; raiſe them above the ground three or four inches, and in a little time they will make ſhoots, and be fit to tranſplant, when they are to be ſeparated from the mother *plant* or *root*. Bare the bigger roots diſcreetly, and hack them a little, which done, cover

cover them with freſh mould or turf, laying the ſweard downwards, and a number of ſuckers will riſe; and when they have drawn, proper roots may be taken up: this method furniſhes a plantation very expeditiouſly. This method is practicable in elms, abele, lime, *&c.* which are apt of themſelves to put forth ſuckers.

NUISANCES *to Ponds and Fiſh.*

It is held by all ſkilful perſons, that the clearer the air and better the ſoil a pond is ſituated in, by ſo much better is the taſte of the fiſh, and by ſo much faſter they will thrive; wood of any ſort growing near the pond is by ſome held bad, not only from its hindering the wind and ſun from purifying the water, but from the leaves and rotten wood falling in, both which are very pernicious; yet oziers and willows may be admitted into ponds, laying at a diſtance (*where regularity is not required*) for the reaſons mentioned under *Fiſh-ponds*. Oak *timber* or *boards* laid in ponds (*as is commonly done to ſeaſon*) are pernicious to fiſh, as is alſo *hemp* and *flax*, and all other things of a ſtrong cephalic ſmell and diſagreeable taſte, all which are carefully to be avoided: alſo dunghills, ſtables, cow-houſes, *&c.* ſuffered to drain into ponds, are very hurtful, and more eſpecially waſh-houſes, if ſuffered to drain into a ſtanding water.

O.

O A K.

This is the beſt, and preferable to all other timber for building of edifices on land, or ſhips at ſea; there are ſeveral ſpecies of this tree, of which two are moſt common, being properly natives of this kingdom, *viz.* the *Quercus Urbana*, which grows erect, and being clear and light, is the moſt uſeful and fitteſt for timber; the other is the *Robor*, or *Quercus Sylveſtris*, which is of a hard black grain, bears a ſmaller acorn than the former, ſpreads its branches more extenſively, and its roots run more above ground, therefore in planting it is to be allowed a greater diſtance, *viz.* from thirty to fifty feet; and if on land that exactly agrees with them, from thirty to forty yards will not be found too much; but then other ſpecies of timber of a more haſty and quicker growth may be planted in theſe intervals that will riſe and come to maturity ſooner, which may be taken away to give room for theſe more bulky and overſpreading trees. The other ſort will admit of being planted at the diſtance of about twenty-five feet, or very rarely more than thirty. The *Quercus Sylveſtris* is alſo diſtinguiſhed when young not only by its branches, but alſo by its being fuller of leaves than the other, which tarniſh and become yellow at the fall, and hang longer on the branches than the former do. The Oak may be propagated by layers, but not to that

ad-

advantage of ſtature and bulk as from the acorn, although layers will do very well, and be of great uſe to thicken underwoods and coppices. Theſe large ſpreading Oaks are beſt propagated upon large waſtes and commons, where there is a great deal of room; a full grown Oak mounts but ſlowly, but ſpreads itſelf ſpeedily by proper culture and good management, ſo that thirty or forty years growth, is gained by good huſbandry.

Both kinds ſhould be tranſplanted about October, but ſome defer it till the Winter is pretty far advanced, which agrees well with the laſt mentioned ſort, but in either of the ſeaſons let the earth be moiſt; by no means dry. The Oak grows tolerably well in moſt ſorts of ground, yet affects a ſound, black, deep, and faſt mould, that is warm, rather than that which is over wet and cold, for this produces the firmeſt timber, yet that growing on moiſt ground is ſaid to be the tougheſt, therefore the moſt proper for the marine ſervice. It is ſaid timber will grow the faſteſt in the lower grounds, or in valleys; but that growing on mountains and uplands is of the finer grain, and the cloſer and better wood. Oak will grow in hot and cold countries, but proſpers beſt in a temperate climate (and where they grow naturally and in abundance is beſt.) Hence it is, that neither the Oaks of Africa being hot, nor thoſe of Sweden, Denmark and Norway being cold, are comparable to ours. An eminent planter prefers cow-paſture, or upland

land meadow, where the mould is rich and ſweet. Before ſowing or planting (*unleſs the depth of the ſoil be well known*) bore and ſearch the ground, for too ſhallow, or too rocky ground is very improper for this MOST NOBLE TIMBER: yet is has been known to thrive exceeding well on gravel and moiſt clay. I remember a certain yeoman that ſold an Oak for two and forty ſhillings and ſix-pence, which he planted when a boy, of an acorn: I apprehend he was near ſeventy years of age when he ſold it, ſo that it might be about fifty-ſeven or fifty-eight years growth, *not exceeding ſixty*: it was of the *Quercus Urbanus* ſpecies, and grew upon a moiſt gravel, which moſt other trees abhor, tho' they have thrived well on a cold clay that will hardly graze; but in ſuch places, they frequently make ſtands, and again grow vigorouſly and very faſt as they happen to meet with and out-grow their obſtacles and obſtructions, ſo that a number of years is gained by an advantage of ſoil and good huſbandry; but it is reported that in a certain *park* in Flintſhire, the Oak ſtrikes root into the very ſtones, and it is alſo obſervable, that in the foreſt of Dean ſome very fine Oaks have grown upon large heaps of old cinders. Thoſe that grow upon ſtone and clay advance but ſlowly, yet in time make the beſt and moſt durable timber. Thoſe that grow on light ſands are proper for wainſcoting, being tough and working ſmooth and fine, but that which grows on gravel is brittle.

For

For tranſplanting, they ought not to be more than ſix or ſeven feet high, and the finer and tenderer the bark is the better, and the fewneſs of ſo much circles declare the plants to be young: ſome diſbranch them on tranſplanting, and lop off the head, which the French never do, neither ought it to be admitted of here; for taking off the head obſtructs their riſing; and diſbranching occaſions faults in the planks when they are felled for timber and ſawn up. Plant them with all the earth that ſticks to them on taking up, abating only the tap-roots, *viz.* that downright and ſtubby part of the roots which all trees, raiſed of ſeed, univerſally produce; but quicken ſome of the reſt with a keen knife, ſparing the fibrous roots in all trees, for they take the ground firſt, and draw ſap moſt; and carefully ſpread them in the pit well prepared for that purpoſe, unleſs the whole field is trenched, which certainly is much the beſt, eſpecially when a conſiderable number are to be planted; the earth being hereby made ſoft and penetrable for the roots, caſting that mould about the roots which was firſt taken off the ſurface, being beſt impregnated and more full of nouriſhing juices; and never ſet the plant deeper in the earth than it was found ſtanding in before its removal, for this often deſtroys a tree, or at leaſt cauſes a great ſtand. It is alſo to be obſerved, although it is ſeldom minded, that if the roots be ſufficiently covered, ſo as to keep the body ſteady and erect, it is enough; whereas very often misfortunes happen to trees for want of being ſupported by three large long ſtakes, ſet

ſloping

ſloping to each tree, and being bound to them at the tops of the ſtakes with hay-bands, for moſt roots, except the *Quercus Urbana*, covet the air, and the wood-men not minding this particular, though ſeemingly trifling circumſtance, are often deceived, and their *Lord* highly diſappointed.

In planting, there is another material (*although diſregarded*) circumſtance carefully to be obſerved, which is planting that ſide of the tree to the ſouth that before ſtood to the ſouth in the *nurſery*, for the ſouthern ſide of the tree that is more dilated, and its pores more open, being expoſed to the colder air on a ſudden becomes ſtarved and chilled; and more trees are deſtroyed in this manner (*although the ground may be carefully prepared, and the roots properly ordered*) than by moſt other accidents whatſoever. This obſervation will hold equally good on tranſplanting fruit-trees: the air being probably as much the mother and nurſe as earth and water; the advantage of which is confirmed by the clearneſs and comparative ſplendor of the ſouth ſide, and the frequent moſſineſs of trees on that ſide towards the north, which is moſt evident in the bark of Oaks: beſides, trees grow faſter and more kindly on the ſouth than on the north ſide of an hill. Therefore I adviſe all planters and wood-men, with a bruſh dipt in ſome particular colour, to mark the north or ſouth ſide of every plant, on taking it out of the earth for tranſplanting.

In our *climate*, it is proper to lay out our plantations, in ſuch manner, that the north-eaſt and other ſharp and piercing winds may rather flank than blow full

full upon them. Some other circumſtances may alſo be conſidered regarding the ſituation with reſpect to rivers and marſhes, liable to pernicious and poiſonous fogs, or hills and ſeas which expoſe them to the ſeverity of the weather and boiſterous weſtern winds; but that timber is commonly the beſt that has endured theſe aſpects without any of the former prejudices: woods expoſed to the winds commonly root beſt, and are generally ſtrong and ſolid, and of theſe mountain trees, thoſe are beſt which grow thin; a good deal may be attributed to ſome peculiar advantages for the growth of timber; from hence, the Oaks of the foreſt of Dean are ſaid to exceed moſt others in England, whilſt others affirm that there are no better than what grow within the verge of Rockingham foreſt, and Yardley-Chace * in Northamptonſhire. An *Oak* or *Elm* on a hot burning gravel or looſe ſhifting earth, will not in a hundred years overtake one of fifty planted in a ſoil proper and natural to it; good air is alſo a material thing in the growth of timber, and contributes a good deal to its excellence; hence it is that junipers grow ſo very large in Spain, to what they do here, and their aſh is the beſt in Europe, and it is obſervable in our own country, that in woods at a ſmall diſtance from each other, there will be a great diſparity in their growth and value, the heart of the timber in one being near double

* The property of the Right Honourable the Earl of Northampton, and which as a private property, is the moſt noble, and the fineſt of the kind in the whole kingdom, and contains about five thouſand acres.

to

to that growing in the other, which undoubtedly proceeds from ſome or more of the before-mentioned cauſes.

In propagating trees for timber, ſpare their heads as aforeſaid, neither be too buſy in lopping, unleſs ſhade or fewel is only required, when they may be topt, and the unthriving branches taken off; for felling, November is certainly the beſt month, the ſap being then at perfect reſt, and the worms will breed leſs than in that felled at an improper ſeaſon; although by a ſtatute of 1. *Jacobus* I, it is to be felled from April to the end of June, becauſe of the uſefulneſs of the bark in tanning leather. Nothing is more deceitful than the buying of Oaks ſtanding, unleſs by a very judicious perſon, there being ſo many and various infirmities attending them; of the two rots, the white is the leaſt injurious, and the red the moſt deſtructive and dangerous. Coppice Oak is to be cut up ſloping near the ſurface, for by ſo cutting it, it produces a ſtronger and freer ſpring. I heard that from an acorn an Oak has roſe in thirty years to a foot in diameter; but this rarely happens; although in Stoke-brewern park, in Northamptonſhire (a ſeat of Mrs. Arundel's) ſpiers are commonly cut at fourteen years growth, as large as in moſt other places at twenty years growth, ſo much difference is there in the quality and nature of the ſoil.

N. B. Oaks lopt or pollarded late in the year, as ſuppoſe in October and November, are ſtunted, and do not grow for ſeveral years, and ſometimes

are

are quite killed, the occaſion of which is the cold piercing the green wounds; which is as deſtructive to the vegetative, as to the animal kingdom.

OAT-MEAL.

Is very proper as well as gainful to be made in all noblemen and gentlemen's houſes where *hounds* are kept, for by making the oat-meal at home, a conſiderable advantage ariſes; for it may be made at the malt-houſe, and ground upon the malt-mill, that is, a *horſe-mill*, water or wind-mill, but the firſt is to be preferred. Under the ſpout of the mill is to be fixt a fan to winnow the greets from the hulls; for at the firſt grinding, the ſtones are to be carried ſo large as to take off the hulls from the kernels only; the fan is to be ſo contrived, as to be turned by the motion of the mill, ſo that grinding and winnowing may be performed at one operation; however, finding them tolerably clean (*for it is impoſſible to hull them all clean at the firſt operation*) they are to be put on again, and the mill ſet to go a *degree* cloſer; run them through a ſecond time, winnowing as before, and ſuch greets or kernels as are clean hulled and properly cut, are to be laid by, and the remainder are to be run through the mill a third time, winnowing as before, when all will be perfected and converted into greets; (*which for certain domeſtic uſes are ſometimes ſplit by the mill*) and the greets, &c. ground into Oatmeal as wanted for uſe, for it will keep better in the greets

than when ground into meal; but it is to be kept dry; the refuſe, hulls, *&c.* are very wholeſome and good food for labouring horſes, mixed with chaff, *&c.*

OATS.

Theſe are a very profitable, uſeful and neceſſary grain, and will grow plentifully on ſuch lands as are naturally ſo cold, that no other grain will grow on them ſo well as to anſwer the toil and expences of the *huſbandman*; there being no ground ſo rich or ſo poor, ſo hot or ſo cold, but ſome one of the ſpecies of Oats will thrive and proſper upon it. Cold, moiſt and ſour land agrees beſt with the black Oat, (*for which ſee under the letter* B.) A dry ſoil agrees beſt with the white Oat, as does alſo a gravelly and ſandy one, and a rich ſoil ſuits with both. There is alſo another ſpecies growing in Staffordſhire, which is called the red Oat, but lower in the North, it is called the naked Oat, becauſe the kernel thraſhes out of the hull without drying or grinding, therefore very convenient for converting into oat-meal: the farmers order theſe Oats as they order barley. The ſtraw and huſk of Oats being of ſo dry a nature, that being laid up wet, they will not heat in the *reek*, nor grow mouldy, as other grain is apt to do. The moſt proper ſeaſon for ſowing Oats is in February and March. Oats newly houſed, and thraſhed before they have ſweat in the mow are laxative. The white Oat is the heavieſt

heavieſt grain, ſo conſequently the beſt. The red Oat, common in the North, bears a ſmaller blade than the others; but when ripe on the ground, are not eaſily diſtinguiſhed from the common white ones; but in thraſhing they come out of the huſk like Dantzick rye; they are alſo ſweeter than the other, but do not yield ſo well. Oats are ſometimes malted when barley is ſcarce. The principal thing to be objected againſt the malting of Oats is, that our *legiſlative power* have wiſely provided, that malt made of Oats ſhall pay the ſame duty with that made of barley, although a third part inferior in quality.

O K E R,

Is a mineral found under a white clay, and under no other ſoil whatſoever, but I would not be underſtood that it lies, and is to be found under every white clay. There are three ſorts or kinds of it, different in quality and goodneſs. The beſt is, the Stone-oker, which are bits of a ſtony nature found lying diſperſed among the other, which are to be carefully picked out and reſerved by themſelves, being a valuable commodity: the next beſt, is that ſort that cuts clear like wax, and of as dark a yellow as the former: the worſt is, that which partakes a little of the ſoil, being mixed with it, and diſcoloured with whitiſh ſtreaks and ſpots of clay; they are all friable when dry. The two laſt ſorts in digging are cut out like a brick, and then ſet upon one end to

dry, after which, they are calcined by a gentle, gradual fire till thoroughly red, and then ground in a mill as woad, &c. and ſifted very fine, and then preſſed up cloſe in caſks for uſe, when the beſt is commonly ſold for the right Armenian bole. Oker-mines turn to good account. It is found in ſeveral parts of the kingdom, as at Garſington and Shotover-hills near Oxford, &c. The ſtone is never calcined, nor yet all the beſt Clay-oker; but uſed crude by painters, &c.

ORCHARD.

As to the ſituation, it may be at any diſtance from the manſion-houſe, and ſo diſpoſed, that it obſtruct no view, nor incommode any garden, pleaſure-ground, &c. There is no place more convenient for planting it than the *park*, ſo that it be walled, or otherways fenced round with cloſe pales to keep out the deer, hares, rabbits, &c. and prevent their making waſte: it ſhould be ſituated ſo as to lie open to the ſouth, ſouth-eaſt, or ſouth-weſt, and be defended pretty well from the north winds, by woods or higher grounds, &c. The land ſhould be rather dry than moiſt, without ſprings; the earth fat, and the ſoil deep, which is more to be regarded than that of a garden, for the garden produces ſuch things that require but a ſhallow root, compared with the roots of trees, ſo is eaſily to be manured and mended to a neceſſary depth, but in orchards, the trees grow large with broad and deep roots, and conſequently the manuring

ring and mending them will be much more expenſive and troubleſome. It is neceſſary to plough an orchard two years before it is planted, to render it mellow and looſe, uſing ſuch manure as will beſt agree with the ground: a flat, watery and ſhallow ſoil may be improved by ploughing, and drawing the ſoil to the place intended to plant the rows of trees upon, the furrows being proper and convenient to carry off the water that would otherwiſe ſtagnate and ſpoil all; but if the land be ſpringy, it is to be drained according to art, *(as directed in this book)* As to low flat grounds, that in Winter are ſubject to land floods, or are ſhallow ebb ſoils: ſuch are beſt planted by trenching; but even then, never anſwer the expectation of the planter.

Uneven ground may be levelled, otherwiſe, ſuch trees as grow pendant, or are not inclinable to grow tall, are to be ſet on the higheſt ground, and ſuch as are aſpiring on the lower. The beſt time for tranſplanting into orchards is in October, or as ſoon as the leaf is fallen.

As to the poſition of the trees, on the north ſide ſhould be ſet the firſt range or row of pear or other fruit-trees, as will grow the talleſt, and others ſouthward as they decreaſe in ſtature or height, that all of them may partake of the meridian ſun, and be leſs liable to be damaged from the northern cold. Walnut or cheſnut-trees are proper to be ſet in rows on the north ſide, to defend the orchard from the north winds, and a fence alſo is not improper on the weſt ſide, as a defence from

the autumnal winds, which throw down the fruit before it is ripe and arrived to its due perfection.

N. B. *As to grafting, tranſplanting, pruning, &c. which are within the province of the gardener, I have purpoſely omitted.*

OVER-FLOWING *of Land.*

This is commonly done by diverting the ſtreams of ſprings, brooks, rivers, or land-floods, or ſome part of them out of their natural or original channel; but where the ſtream lies low, ſo as to be uncapable of being drawn over the land, the Perſian wheel is the beſt, cheapeſt, and moſt proper *engine* to effect it, provided that there is water ſufficient to move it, and enough to ſpare to water the land deſigned.

OXEN.

All that I ſhall ſay upon this head is, that the management of Oxen is a thing ſo well known, that it is almoſt needleſs to mention; but the *ſtall* feeding them perhaps may not be ſo generally known, I ſhall therefore give it from an eminent grazier. "For fattening of Oxen, *&c. ſays he,* "there are ſeveral ways known to moſt graziers; "but for fattening them in the *ſtall*, I always take "the following method: if taken from Summer "graſs, they will refuſe hay for ſome time, there- "fore ſhould be kept without meat and water a "day and night, which generally brings them to "it; but at firſt give them but little at once, that

"it

" it may be eat up clean, and they will thereby be-
" come hungry, always remembring to take them
" up when their coats are dry, and afterwards
" let them not go out of the *ſtall* to lick them-
" ſelves, for that retards their fattening; care is
" alſo to be taken that they always have a con-
" ſtant ſupply of water, which is beſt conveyed
" to them in the ſtall from ſome wholeſome wa-
" ter near at hand, through a pipe into a wooden
" trough of the length of the ox-houſe, or at
" leaſt the length of the ſtalls, which is to be
" filled morning and evening, taking care every
" time to cleanſe the trough of the former water,
" for after they have drank their fill of the freſh
" water, they will loath the reſt; the trough is
" to be laid ſomewhat ſloping, that the water
" may drain out clean after it is bruſht about
" with a broom to take off all filth and ſlimi-
" neſs from off the wood, which otherwiſe
" would be apt to gather: this is to be done
" morning and evening, all the time the Oxen
" are feeding: the ſame is to be done with the
" hay, for the old is to be taken away, and
" freſh brought morning, at noon, and again in
" the evening, and for change, give them ſome-
" times wheat or barley chaff, with ſome of the
" light grain in it, and ſometimes cut hay with a
" ſmall mixture of fine young furz of one year's
" growth, which is excellent food, and when rye
" does not exceed two ſhillings a buſhel, at laſt
" they may be made up with that: great care is

" alſo to be taken to keep them clean, this will " forward them a good deal, and haſten their fat- " tening. Do not litter them unleſs a little to- " wards their ſhoulders, but let them lie on good " clean planks, *&c.* and always let the ox-houſe " be kept ſweet and clean."

OZIER,

Is both the red and yellow water-willow, although it will grow upon indifferent dry ground, ſo that it be not expoſed too much to the ſun; but thrives beſt in the moiſteſt lands, on which it is one of the greateſt improvements that can be made, being uſed for the making of baſkets, ſkips, panniers, *&c.* which enhances the value of Ozier land, even *in ſome places* beyond that of wheat, ſo that it is there let from *three* to *ſix* pounds an acre.

P.

PANNAGE, *or Pawnage.*

Is the maſt growing in woods, as of beech, acorns, *&c.* which ſwine or other cattle feed on; or the money paid for feeding hogs with the maſt growing in foreſts, chaces, *&c.*

PAN-TILES,

Are the beſt covering for flat and long roofs, or for any other that do not lie well for drying; they are alſo very light, not requiring ſo much lap as the other do; they are made in the form of an

an S. There are great quantities brought from Holland, to our diſgrace, paying duty, and ſold as cheap as thoſe made here, and yet our materials are as good as theirs, and fewel much cheaper.

PARK, *and Warren*,

Are ſuch places wherein deer, hares, rabbets, *&c.* are encloſed and kept, ſo as to be always ready to be taken to ſerve the uſe and pleaſure of the *lord*. A certain number of male deer ſhould be gelt at about a year old, which are called *baviors*; theſe are accounted very fine, and a great rarity, and if fat, are never out of ſeaſon, ſo that where there is a proper and ſufficient number of theſe kept, the *lord* is never at a loſs for veniſon at his table when he calls for it. *Vide Steward, ſect.* 11.

PASTURE-LAND,

Is ſuch that is neither meadow nor ploughed, but reſerved for the feeding of cattle, alſo the herbage growing on ſuch land: *paſtures* and *meadows* are ſo advantageous a part of huſbandry, that they are by ſome preferred to *arable*, on account of the ſmall charge, toil and hazard that attend them; beſides, they lay the foundation of the greater part of the profit that ariſes from the *arable* or *ploughed* land, by reaſon of the dung and manure made by the cattle ſupported by them. All *Paſture* grounds may be reduced to theſe three ſorts. *Firſt*, Up-land, which lies ſo high as not to be

be overflowed by land-floods or rivers. *Second*, Boggy, or marſh-lands, lying near rivers or fens. *Third*, Thoſe that are over-flowed by ſea-breaches. The beſt land is the moſt proper for paſture and meadow, the indifferent and worſe for tillage, becauſe this may be improved by manure, and laid down with proper graſſes; but by ploughing, the beſt land is always worſted, and made poor, and is a conſiderable time in recovering what was taken from it.

PEASE,

Theſe are the chiefeſt of Engliſh pulſe, and of which there are different kinds, proper for different kinds of land: for the management of Peaſe, obſerve the following rules. The common ſort of white *Pea* takes beſt on a light ſoil that is ſomewhat rich, and if the land be binding, it is beſt to ſow them with a broad caſt, and harrowed in; the moſt proper time for ſowing theſe is about the middle or latter end of April; about three buſhels will ſow an acre. Grey Peaſe are beſt ſown under the furrow, *and by the corn-ſetting engine:* they delight in a cold, moiſt clay; about two buſhels and a half will ſow an acre, and the time for ſowing them is in February, or beginning of March. In Oxfordſhire, the *Henley-grey*, and the *Red ſhank* Peaſe for ground new broke up, the *Vale grey* for ſtrong lands, and the *Hampſhire kids* for lands newly chalked, the ſmall *Raſh-ripe* Pea, for poor, gravelly ground, and the *Cotswold*

wold-pea for four lands; but the *Marlborough-grey* is inferior to none of the others for flinty and all light lands whatſoever. When Peaſe are brought into the granery, the beſt way is to lay them thick, or put them in bins, which gives them a mellowneſs, and keeps them longer moiſt; but ſpreading thin dries them too ſoon, and takes away much of their ſweetneſs; but preferable to all others, is, that of thraſhing them as wanted. The like may be ſaid of beans and all pulſes. There is no grain more certain of paying for keeping than beans; for old beans well preſerved are always ſure to bear a good price, *ſo long as England continues a hell for horſes.*

PERSIAN-WHEEL.

An engine invented by that great engineer ——— Perry, Eſq; a Lincolnſhire gentleman, who was ſeveral years in the ſervice of Peter, the late Czar of Muſcovy, and after his return to England, made great progreſs in ſeveral branches of mathematical learning, more eſpecially in the mechanical branch: to him we are indebted for ſeveral uſeful diſcoveries in this way, for draining of lands, for improving our inland navigation, for the watering and over-flowing of lands, *&c.* for which this wheel is of ſingular uſe both in draining and over-flowing for improvement, and may be made of any ſize at pleaſure, according to what height the water is to be raiſed to, and the ſtrength of the ſtream that gives motion

motion to the engine. There are ſome other uſeful machines uſed for the aforeſaid purpoſes, and erected for an inconſiderable charge, as the chain-pump, *&c.*

PIGEON, *Pigeon-houſe, and Pigeons-dung*, &c.

The Pigeon is a bird bred throughout England, and in moſt other countries of the known world, and feeds upon all manner of grain, ſeeds, *&c.* It being ſo well known, that it would be needleſs to deſcribe it; but as there are ſeveral kinds, I ſhall give the names of thoſe recent in my memory, as, 1. The greater *tame Pigeon*, commonly called the *Runt*. 2. *Croppers*. 3. *Broad-tailed Shakers*. 4. *Narrow-tailed Shakers*. 5. *Carriers*. 6. *Cappers*. 7. *Jacobines*. 8. *Turbits*. 9. *Smiters*. 10. *Tumblers*. 11. *Barbary Pigeon*. 12. *Helmets*. 13. *Light-horſemen*. 14. *Dragoons*. 15. *Baſtard-bills*. 16. *Turners*. 17. *Finikins*. 18. *Mawnets*. 19. *Spots*. 20. *St. Thomas-iſland Pigeons*. 21. The *Rock Pigeon*. 22. The *Stock Dove*. 23. The *Ring Dove*. 24. The *Turtle Dove*. 25. The *Livia Geſneri*, *&c.* Of the *Croppers*, there are two or three ſorts, one of which is called the *Dutch Cropper*: ſo that there are reputed to be about 28 different kinds in all; but I ſhall conſider them as one only, the Wood-Pigeons only excepted, which I ſhall ſay nothing of. (There is alſo 26. the *King Pigeon*) Tame Pigeons differ little from the wild or dove-houſe Pigeons, only they are bigger, and more familiar, and apt to be tame,

tame: they commonly bring no more than a pair at one hatch, and thoſe that are leaſt are always the beſt breeders; their rooms and boxes are to be kept clean, it being a bird that delights much in neatneſs: if the walls are whited or painted, it gives them great pleaſure, for fair buildings alſo pleaſe them. If duly fed, they will hatch once a month, and when well paired, they will never ſeparate: but as I am not writing to *Ladies*, I ſhall ſay no more of particulars. Theſe with the common dove-houſe Pigeons, are fed with *peaſe*, *tares*, *vetches*, *&c.* and generally proſper beſt where there is a ſhallow, clear running water near their habitation, whoſe ſhores are well covered with ſmall gravel: and thoſe that intend to keep a good ſtock, ſhould always keep a hard lump of rock-ſalt on a *ſtand*, in ſome convenient place in the dove-houſe, or otherwiſe mix a quantity of ſmall gravel with common ſalt and lay it for them; which is alſo to be done on erecting a new dove-houſe, when it will be alſo proper to waſh the walls and roof with ſalt and water within and without, and alſo lay ſome ſalt and ſand upon the ridge, and about the hole by which they go in, and likewiſe upon the beams within, which will ſoon bring plenty. The like method is proper to be taken upon the removal of a Pigeon-houſe; but the old one is not to be taken down till the new one is built and dreſſed, and the Pigeons pretty well reconciled to it. Salt-petre, or ſalt-petre earth,

earth, gathered from the walls of ſome cellars, is very good for the purpoſe.

Pigeons are to be carefully fed in froſt and ſnowy weather, as alſo about Midſummer before the grain is ripe, which ſeaſon is commonly called benting-time; becauſe at that time they feed upon the ſeeds of bents, *&c.* Theſe birds are advantageous to thoſe that keep them in dove-houſes, yet they are hurtful to the *farmer*, deſtroying great quantities of all ſorts of grain. *Stares* or *Starlings* are great annoyances to dove-houſes, and there is no better way to deſtroy them, than to cover the hole at the top of the houſe with a net when they are ſafe at rooſt, and then having a ladder in readineſs ſet to reach the top of the inſide of the hole of entrance, and there place a perſon with a *bat* or ſome other thing to knock them down, as they are frighted thither by perſons below, who are all to have candles and lanthorns. I have known ten or twelve dozen of *Starlings* caught at a time, and not a Pigeon hurt. *Pole-cats*, *Weaſles*, *Stoats*, &c. are alſo very deſtructive to Pigeons if they get into the *houſe*, but theſe may be caught in *traps*, *gins*, &c. and muſt not be neglected.

PIGEONS-DUNG, is not only accounted to excel that of all other fowls, but even of all creatures whatſoever, one load of it being worth five of other dung, and therefore is uſually ſown on *wheat* or *barley* that lies at a conſiderable diſtance

tance from home, to ſave the carriage of a much greater quantity of other dung: from fifteen to twenty buſhels may be ſown upon an acre. It is an excellent manure for cold moiſt lands, ſown by hand after the corn, and in the ſame manner, and then harrowed in, and, if poſſible, it ſhould be ſown immediately before rain, which ſoaks the nitrous particles *(with which it is ſtrongly endowed)* to the roots of the grains, and produces a great crop for one year only.

PINE.

Of this there are reckoned no leſs than ten ſorts, but it is out of my deſign to deſcend to particulars, I ſhall therefore in general diſtinguiſh them by the name of male and female; but the domeſtic or native are the more haſty in growth. The male riſes not ſo high as the female, and is more knotty. The cones are to hang two years, and then to be gathered in June, or before they gape, and then to be preſerved in ſand till February, when they are to be ſown, and the ground every way to be ordered as in the management of fir, to which you are directed in the whole; but the ſeeds of theſe are to be interred a little deeper; and ſome roll them in a compoſt of ſheeps-dung, which agrees with them, and they will riſe an inch high by the middle of May. Some plant them as peaſe, but at a greater diſtance, that upon removal they may be taken up with a clod to the root; for if forcibly pulled up, they miſcarry

miſcarry ſooneſt of any other plant: therefore it is moſt proper where the ſeeds may be ſet and properly defended, to ſet them in the deſigned places where they are to ſtand, and not to move them at all. Some ſet the ſeeds in an earthen pot, and in froſty weather warm them a little before the fire, when the clod will come out of the pot whole and entire, which are to be reſerved and ſet in the deſigned places when the thaw becomes univerſal. The domeſtic Pine proſpers very well here both on mountains and in the lower grounds; but the *Pinaſter*, or the wild Pine, of which there are no fewer than four ſorts, make the fineſt walks, *&c.*

N. B. From the Pine-wood, great quantities of tar and pitch are made, by forcing out the ſap by fire, which is the occaſion of their blackneſs, when the turpentine is clear and yellow. I ſhall forbear the deſcription, becauſe the operation is performed in New-England, Norway, *&c.* where this wood abounds.

PLOUGH.

This is the moſt neceſſary and uſeful inſtrument in the whole branch of *huſbandry*, and is termed (by Mr. Pratt) the principal of all other machines for that purpoſe; but the make and ſhape is various, every different part of the *nation* being wedded to its own particular faſhion, ſo that to deſcribe every particular ſort would be tedious and almoſt impoſſible, unleſs I was to make a perambulation quite through the kingdom; but moſt of

of them have their perfections and their failings, therefore it would be the intereſt of every farmer to keep more than one ſort, ſo as to ſuit all ſeaſons, and with every ſort of land, and for all purpoſes where a plough is required. There is, firſt, the doubled wheeled Plough, being that uſed in Hertfordſhire, on the Chilterns in Bucks, and weſtwards through the counties of Berks, Wilts, *&c.* It is certainly preferable to moſt of the other ſorts, and alſo one of the ſtrongeſt, and is adapted to moſt of the branches of huſbandry where a Plough is required: it is of the eaſieſt draught, and ſuits with all ſorts of land, except ſtrong clays, which in Winter is apt to clog the wheels, but for ſuch lands they are beſt to plough up lays, and all Summer tilths with; theſe cut up mole-hills and uneven ground beyond all other Ploughs. I have obſerved, that in the Vale of White-horſe in Berkſhire, that the farmer performs all the tilths with this Plough, although the land there is as ſtrong and ſticky as in any part of the kingdom I ever ſaw. This Plough is generally drawn with horſes or oxen going double or two at a-breaſt. The wheels are about eighteen or twenty inches high, and in ſome places the furrow wheel is an inch or two higher than the other.

The *fen* Plough is very ſingular in its make, and is proper only for marſhy lands and fens, that are ſubject to weeds and ſedgy roots, and free from ſtones; for the *coulter* is a circular piece of iron, ſteeled round about, and kept keen to cut through the roots of the ſedge and graſs by its turning

round upon a centre pin: the ſhare is very large, being often made more than two feet broad: it alſo has a foot, which is ſet higher or lower by wedges; it cuts a large broad furrow, and lays it quite flat.

Next is the Suſſex Plough, which goes with a ſingle wheel, and that fixt under the forepart of the beam; it is alſo different from others, as being a clouterly clumſy ſort, and very wide in the breech, which occaſions it to be of a hard draught. The beam riſes a good deal in the middle, being every ways very ungain, and is chiefly remarkable for its extraordinary ſhape.

The drain Plough alſo is worth obſerving, and for its uſefulneſs ſhould be more in uſe than it is. This Plough cuts a trench a foot wide at bottom, and fourteen or fifteen inches wide at the top, and a foot deep; it is generally drawn with eighteen or twenty horſes, has two coulters ſet a-breaſt to cut each ſide of the trench. In Northamptonſhire ſuch a Plough coſts about three guineas, but the diſpatch it makes ſoon over pays the imagined great expence. It is generally bought out of the town ſtock, or at the charge of the whole pariſh, to cut a large trench between two furlongs that lay deſcending upon each other, to carry off the waters that run out of the land furrows into ſome common *ſewer*, *gutter*, *&c.* which waters and heavy rains would otherwiſe ſtagnate perhaps on ſome valuable green ſweard, and ſpoil it, and endanger the health of the ſheep feeding upon it. If this

Plough

Plough is properly made, it will caſt the earth ten inches or a foot from the trench, which prevents cattle treading it in; but ſuch earth ſhould be gathered up, and burnt to a red aſh, and then ſpread upon the ground, otherwiſe carried to fill up the furrow on the pitching ſide of the ploughed lands adjoining, or for ſome other uſeful purpoſe.

Every conſiderable farmer ſhould likewiſe be provided of ſuch a Plough in miniature, *viz.* made to cut a furrow about ſix inches wide at top, and about four at bottom, and about ſix deep, to plough a ſmall furrow between lays, the better to keep the land dry; which ſmall trench is to carry the water to larger, made by the Plough juſt before mentioned, and the earth to be gathered up and burnt, according to directions before given in burning of earth, *&c.*

Then there is the *dray* Plough, which is the moſt common, and moſtly uſed in the counties of Northampton, Leiceſter, Warwick, Surrey, *&c.* which is a plain Plough made without either wheel or foot, is of an eaſy draught, and is certainly the beſt in *Winter* for ſtrong land and miry clays, and where the land is ſoft, but the worſt in *dry* weather, and in *Summer*, when the earth is hard, for then the point is continually flying out of the ground. This Plough is ſet higher or lower by wedges. In ſome parts of Warwickſhire, and in Eſſex, *&c.* the farmers uſe a fine light double wheeled Plough, which is to be drawn by two horſes a-breaſt; in

Warwickſhire it is uſed only for the Summer tilth, and in a dry ſeed time, the winter ploughing being performed with the common Plough; but in Eſſex, *&c.* all the tilths are performed by the light wheel Plough, for upon the light land there with this Plough and a pair of horſes, two acres are commonly ploughed in a day. In Eſſex, this Plough is commonly made with an iron ſhield-board bulging, which turns the turf or earth much better than any other ſort of Plough.

In Kent, there is another ſort of Plough uſed, which is there called the *Turn-wreſt* Plough, which is double wheeled, but heavy and clumſy.

Laſtly, there is the *double* Plough, which comprehends two ſorts. *Firſt*, one fixt to the ſide of the other, ſo that by four or five horſes, and two men, a double quantity of land may be ploughed in a day. *Secondly*, there is another ſort, whereby two furrows may be ploughed at once one under the other, ſo that the ground is ſtirred to a foot deep; this method of ploughing is proper in large gardens, *&c.* where a great depth of mould is required.

As to general rules in the make and ſhape of Ploughs. *Firſt*, they ought to be made greater or ſmaller, according to the depth and ſtrength of the ſoil to be ploughed, and as the ground is wet or dry, for which every farmer ſhould be provided of different ſorts. *Secondly*, where the land is *ſtrong* and *ſtiff*, the coulter is to be large and

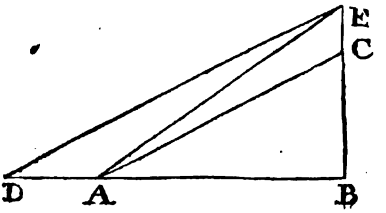
ſtrong

ſtrong to cut the ground deep, for on deep lands the weeds root the deepeſt, and ſuch lands are moſt inclinable to breed deep rooting weeds, and for the better cutting up of which, ſome ploughmen ſet on the right ſide of the coulter a ſhap fin, which cuts in two the bottom of the roots of all weeds growing on the furrow, whilſt others fix it to the right ſide of the wreſt of the Plough, which cuts them after the furrow is turned, this method is moſtly uſed in Northamptonſhire; but I take the former to be the beſt. A principal thing in making of Ploughs, is, that they are made to go true to the pitch they are ſet to, and keep to the line they are in, without deviating from it: a good deal of which depends upon the truth of the iron work. A ſhort broad breech'd Plough goes hard, and a long narrow one more eaſy, which is very eaſily demonſtrated; for the ſharper a tool is the eaſier it cuts, and the thicker and more dull the harder, and conſequently the greater ſtrength is required to make it perform its office; and yet it is poſſible to make a Plough go eaſy, and to turn a furrow as well as a broad breech'd one that is of a harder draught.

PLOUGHING.

In this work is to be conſidered, *Firſt*, the ploughing up of lays, or breaking up of land, which is the firſt ploughing up of graſs-grounds for corn, which is commonly done in January,

when the land is wet and the turf tough, which occaſions it to hold together and turn without breaking; to lay turf flat and clean, a good deal depends upon the make of the plough, and more particularly the *ſhield-board*; although ſome nail a bit of wood upon it to cauſe it to lay the turf flat, yet this is by no means to be admitted of, for it cauſes the plough to be hard of draught; and the reaſon of it is this; the breech is made wide, and the length is not proportionable, which the unwary farmer or *plough-wright* perhaps may not comprehend: therefore in order to make a plough go eaſy that is broad behind——The *ſhield-board* is to be made longer, and the other parts of the plough proportionable, then it may go at any aſſigned breadth without obſtructing the draught. This being ſo plain that it will admit of a mathematical demonſtration; but as every ſteward, farmer, or plough-wright, is not ſkilled in ſuch conſtructions, I ſhall give a plain figure, and by as plain demonſtrations and arguments as I can, convince every one of the truth of my propoſition.



Let A. B. C. repreſent the common *ſhield-board*, and A. E. B. one, when a piece is ſet upon it to make the plough wider behind, in order to lay the

turf

turf more flat. It is plainly ſeen that when the piece A. E. C. is laid upon the ſhield-board, A. B. C. muſt preſs very hard upon the furrow, and conſequently cauſe the plough to draw as hard: as if a man was to drive a thick ſhort wedge into a piece of wood, he would find it go conſiderably harder than one of the ſame thickneſs, a third part, or even if it was but a fourth part longer, for then it would be more taper: the thing is the ſame according to the figure, for ſuppoſe the ſhield-board was extended from A. to D. it would be more taper, and conſequently more eaſily follow the coulter and ſhare, whereby the draught would be more eaſy; for a ſhield-board ſtanding at the breadth E. B. if the length is D. B. goes as eaſy as one ſtanding no wider than C. B. if the length is only A. B. for in both the angles are ſimilar.

Secondly, the ploughing up of fallows, which is a very conſiderable benefit, and of great ſervice to arable land, as appears by common practice, and in the great care *landlords* every where take *(or ſhould do)* to oblige their tenants to a ſtrict obſervance of it once in three years, few lands being able to bear more than two crops without it. For the due ordering of fallows, the land ſhould lie all Winter that the ſheep may eat off all the graſs and weeds, then as ſoon as the Spring ſowing is done, it is uſual to plough up the fallows, this firſt fallowing in moſt places ought to be very ſhallow, but well turned and clapt cloſe together,

for the thinner the turf is, the ſooner it will dry through, and the weeds be killed, eſpecially in dry weather; but upon a cold ſtrong clay, that will not bear a crop without the whole depth of the ſoil be expoſed to the ſun to warm it, ſuch land ought to be ploughed the intended depth at the firſt, that the ſun may have the longer and greater influence upon it; about June, or before, is the ſecond time of ploughing, which in ſome places is called the *twi-fallow*, when the ploughman muſt go the depth intended if he did not at the firſt fallow. About the latter end of July, and the beginning of Auguſt, the land is to be ploughed a third time, which is by ſome called the *tri-fallow*, or laſt ploughing before the ſowing of rye or wheat, but ſome defer this ploughing later, and ſome plough the land oftener. Land is firſt ploughed up, the next time down, and then laid up the laſt ploughing before it is ſown to lay the ſeed in dry, and to prevent its periſhing by the winter rains; but upon light lands that do not hold the water, the land is generally laid but low, but there is ſo great a difference in the ploughing and ordering of land for a crop, that it is next to an impoſſibility to preſcribe a general rule, every part of the country being wedded to its own way, and different methods are to be taken with different ſoils; but if land is of a binding ſoil and full of clods, it is to be made fine by harrowing after a ſhower.

Where land is but indifferent and manure ſcarce, fallowing it one year and cropping it the next (*and*

ſo

ſo alternately) is found to be of ſingular uſe, and ſeems to be an ancient piece of huſbandry. Virgil adviſing thus:

Let thy land reſt alternately untilled,
And to worn grounds an annual ceſſation yield.

Always obſerve to ſtir land in dry weather, and not ſuffer the team to go to plough in a rainy day, for it is better to lie ſtill than work to no purpoſe. It is neceſſary to pen the ſheep in the Summer on thoſe lands intended for wheat and Winter-corn, there being no manure ſo good for the purpoſe as ſheeps dung. Wheat and rye ſhould be ſown rather early than late, although wheat has ſucceeded very well ſown at Martinmas, but this ſhould not be put to the venture.

In ſome places the farmer takes a crop of wheat, and a ſecond of beans, peaſe, *&c.* and then fallow; but in Staffordſhire and ſome other parts of the kingdom, the farmer gives his land a Winter fallowing, and three Summer ones, and lays the land up in ridges when it is ſown barley, which according to Virgil,

The greedy villager likes beſt that mould,
Which twice has felt the ſun and twice the cold.

Which ſeems to be agreeable alſo with cold four lands; but all land ought to be ploughed four times for wheat, and five for barley.

Clay lands, and all others ſubject to hold wet, ſhould be kept pretty high in the Winter ploughings the better to caſt it off, for if ſuch lands be ſuffered

ſuffered to lie flat, they will become ſo poachy and full of weeds, that they will not be fit to bear a crop the next Summer, and what they produce will be worth little.

It ſhould be the care of every ploughman to get a thorough underſtanding into the nature of the different ſoils he works upon, how to lay the furrows, of what depth he ſhould plough them, and by what means he may be enabled to gain the greateſt quantity of mould, not always regarding the cuſtom of the place, but to improve the old cuſtomary methods, for without trials no improvements are to be made, for, after all inſtructions, experience will be found the beſt preceptor: but however, if arable land lie againſt the ſide of a ſteep hill, as it is common in barren ſoils, if a perſon ſhould plough directly againſt ſuch hill, beginning at the bottom, and aſcend in a direct line, then down and up again, *&c.* it would undoubtedly prove a great fatigue to the cattle; it ſhould therefore be ploughed ſide-ways or overthwart the hill, when the beaſts will tread more near upon a level; beſides, hills ploughed after this manner, better retain the manure and compoſt laid upon them, for the furrows not lying ſtraight down, and in an even deſcent, but turned againſt the hill, muſt certainly hold the ſoil within much better than otherwiſe; but clay hills are by no means to be ploughed after this manner, for it will cauſe them to retain the wet and make them poachy, and if uſed according to the common

mon method, they will not hold the ſoil; ſo that they may be ſaid to be the worſt of ſoils to be converted into arable, unleſs for a crop or two, and then laid down again to recover themſelves, for compoſt will have very little effect upon them.

POCKET *of Wool.*

The quantity of half a ſack, or ſix tods and a ſtone, every tod to contain twenty-eight pounds, and a ſtone fourteen, which alſo is horſeman's weight.

POPLAR.

Of this there are ſeveral kinds, as *white*, *black*, *Water-poplar*, &c. beſides the *Aſpin* and *Abele*. The white is moſt valuable in this country, and is produced from every ſet or ſlip, for if a piece of ground be *hedged* in where the roots of old Poplar are, it will ſoon produce a large quantity of ſets, which being ſlipt from the mother, never fail growing, as I ſaid before. This may be effected the firſt year; but when an old tree is cut down and the roots preſerved, there needs no other nurſery: they flouriſh ſurpriſingly in moiſt, boggy places if the ground is not ſpewy, more eſpecially near the banks of rivers, *&c.* and in low and fertile grounds: they will likewiſe flouriſh in high drier lands, from truncheons of ſeven or eight feet long, for which a hole is to be made and filled with water, and the truncheon to be ſet two feet deep, and then filled up with fine earth

earth cloſe laid: when they have taken root, cut them within about ſix inches of the ground ſloping; if for coppices, plant them at three or four feet diſtance. If they are planted of rooted trees or ſmall ſets, they are not to be put ſo deep, for they ſtrike root but ſhallow. In fifteen or ſixteen years, they riſe very high, and make large branch ſhoots, but then their heads are not to be diminiſhed, but the lower branches may be cut off, but do not go too high, but cleanſe the *ſtool* of ſuckers once in two years; ſo far the white Poplar.

The black is often reduced to a pollard, when ten or twelve inches round, and at eight or nine feet high: they may be beheaded once in three or four years, but always reſerve the middle ſtraight, moſt thriving and upright ſhoot, and if after ſuch treatment for two or three times, all be for the future ſpared; they become moſt excellent *eye-traps*, if they ſtand on eminences; and are worth the planting for that purpoſe; when a perſon of quality is deſirous of having a certain ſeat or particular ſpot of ground diſtinguiſhed from other adjacent ones, as Hungary-hill at Courtenhall near Northampton, (one of the ſeats of William Wake, Eſq; eldeſt ſon of my honourable friend and patron, Sir William Wake, Baronet) is diſtinguiſhed at a great diſtance by an *avenue* of ſuch trees. Although they afford a good ſhade in Summer, yet they are not very proper for walks and avenues in common uſe, becauſe

cauſe that from their roots ariſe a great number of ſuckers, which (*unleſs carefully kept down*) cauſes an obſtruction in the paſſages, and prevents the cleanneſs of the walk. It would be proper to plant theſe ſort of trees in woods, to flank places at a diſtance, on account of their ſpeedy encreaſe, and their bright ſhining leaves. The wood is uſeful, and the boards thoroughly dried in the ſhade, laſt a long time. The pale green *Poplar* is the moſt proper for watery grounds, the planting of truncheons or ſtakes from two to ſix feet long, and from ſix to twelve inches round, in a ſhort time produce great quantities of lop, and by ſome are preferred to willows: on planting, make a hole eighteen or twenty inches deep, to prevent the ſtake's ſtripping off its bark in putting it into the ground, and when planted, the earth is to be cloſed up to it; and it ſhould have a proper ſupporter, to prevent its ſhaking before it has taken root to ſupport itſelf. Some make drains in very moiſt ground, two ſpit deep, and three feet wide, caſting the earth into the middle to lay the land more dry, ſowing it the firſt year with black oats, which mellows the ſoil, and the next Winter planting it for a coppice, with theſe or other aquaticks, by which means in *five* or *ſix* years, there will be a tolerable fell, and ſo ſucceſſively. There is another ſort, firſt brought out of Virginia, as it is ſaid, by one John Tradeſcant, under the name of the tulip-tree: if ſo, they are very ſcarce. There being one of a very large ſize at Waltham-abbey

in

in Eſſex, another ſeat of the aforeſaid William Wake, Eſq; The author of the Hiſtory of Waltham-abbey, and the manors appendant, thus expreſſes himſelf. "But above all, I muſt not forget the tulip-tree, the largeſt and biggeſt ever ſeen: there being but one more in England, and that at the earl of Peterborough's. It blows with innumerable flowers in the months of June and July, *&c.*" Notwithſtanding, this beautiful tree is ranked in the ſpecies of the Poplar.

The *Aſpen*, which is a ſort of white *Poplar*, bears a more ſmall and tremulous leaf, thruſts down a more ſtronger root, and will not admit of beheading; and which is beſt propagated by ſhort truncheons couched about two feet in the ground, at about two feet diſtance, and then covered with mould.

There is a fine ſort of white *Poplar*, which the Dutch (*and we from them*) call *Abele*: ſome of which is brought hither from Holland; they are beſt propagated of ſlips from the roots, which will take, and when properly rooted, are to be tranſplanted in March; but it is beſt to let them ſtand three or four years in the nurſery firſt: they are to be planted in the nurſery at about three feet diſtance, in a light and moiſt mould; by no means a clay: they are to be ſet pretty deep, and not above three inches above ground; keep them clean and prune them to the middle ſhoot, and on tranſplanting, place them from twenty-four to thirty feet diſtance. They will grow of layers

and

and cuttings in very moiſt places: and being tranſplanted into an agreeable ſoil, will grow to their utmoſt perfection in twenty or twenty-four years; upon account of the celerity of their growth; they are very proper to be planted in ſuch places where a ſhade is haſtily required, or ground wants to be covered with a friendly ſhade; and moſt of the *Poplars* will pay annually twelve-pence *per* head for ſtanding, till they arrive at their utmoſt perfection.

The beſt uſe of the *Poplar* and *Abele* is for walks and avenues about grounds ſituated low, and near the water; but will alſo do very well on hills, ſo that the ground is ſomewhat moiſt, and the ſoil pretty deep; and any thing will thrive under their ſhade; but when they are grown very old, they become knurry, and out of proportion: the lop, *&c.* of theſe woods, will burn very well, but are not durable.

POT-ASHES,

Are all ſorts of aſhes promiſcuouſly jumbled together, as they are bought up by thoſe that go about for that purpoſe, and of theſe confuſed ſorts are made *Pot-aſhes*. Theſe aſhes are uſed in the making of *green-glaſs*, glazing of *pots*, *&c.* But as in the making of theſe aſhes there is a great deal of refuſe, a great many farmers who have a good deal of poor lands, take it upon them to make this ſort of commodity, purely to enrich and improve their land with the refuſe;

refuſe, to which nothing is preferable; but as they have had a large quantity of their nitrous particles extracted in making of the lyes or lees, a double quantity is to be laid upon an acre to what there need be otherwiſe.

The beſt material for making of Pot-aſhes is the herb *Kali*, of which I think there are no leſs than ten ſorts; but nine of them are exoticks, I ſhall only mention one, which is the jointed kali, found in the river Thames and Engliſh *ſea-coaſt*, and in no other country more northward: next to *Kali* is the common ſmall highway thiſtle, but all thiſtles are good. The next in goodneſs is fern, but in ſhort, all ſorts of wood and bean-ſtraw aſhes, *&c.* will do, thoſe being beſt that are made from the materials that are cut down in their full pride and bloſſom, being then fulleſt of nitrous particles.

With us, the beſt Pot-aſhes are made in the following manner. Proper quantities of *kali*, *thiſtle*, *fern*, *bean*, *peaſe-ſtraw*, *hop*, *hawlm*, &c. being brought to the place deſigned, and a ſtrong *lixivium*, *lye* or *lee*, being made from the aſhes bought up and brought thither for that purpoſe; then there is to be laid a ſtratum of *kali*, *thiſtle*, *fern*, *ſtraw*, &c. which are to be well ſoaked with the *lye*, &c. then another ſtratum of the laſt-mentioned materials is to be laid on; and ſo proceed laying on and ſoaking 'till a proper *heap* is raiſed, when it is to be ſet on fire, and whilſt it is burning muſt be often ſprinkled with the *lye*: the more

more *lye* there is thrown on in the burning, the ſtronger the aſhes: and whenever or wherever it offers to produce a flame, there more particularly throw on *lye*, for flaming ſpoils the aſhes; when all is burnt down, the aſhes will be found in hard, ſtony lumps; if not, with ſome of the aforeſaid *lye*, they are to be made into *balls*, and dried for uſe, and all the refuſe as aforeſaid, is for the improving of *land*.

I am informed, that in ſome parts of the kingdom, the Pot-aſh-makers uſe a *lixivium* or *lye* made from quick lime; as near the ſea coaſts, they uſe a lye made from calcined ſhells, ſuch as oyſters, *&c.* but this I think cannot be ſo good as that made from ſuch materials as the ſubſtance of the Pot-aſh conſiſts of.

The quality and goodneſs of Pot-aſhes is beſt tried and proved in the following manner. Take a pound of pot-aſhes, diſſolve them in ſix or ſeven quarts of clear water; being well ſettled, decant off the clear from the *fæces*, dry them thoroughly, and then weigh them again, and ſo much as they want of a pound, ſo much ſalt is contained in each pound weight, ſo that the leſs a pound of aſhes weighs after they have gone through this diſſolution, the better and ſtronger they be; beſides, the ſtrongeſt and beſt are ſuch as are hard, white, or moſt inclinable to white, which ariſes from their being well burnt, and therefore contain the greateſt quantity of ſalt.

POUND,

Is an incloſed ſpot of ground to keep beaſts in, but more eſpecially a place to put cattle in that are diſtrained for any treſpaſs, till they are replevied, or otherwiſe redeemed: and it is termed *Pound overt*, or *open Pound*, being built upon the lord's waſte, and from thence called the *Lord's-pound*; becauſe he provides it for the uſe of himſelf and his tenants. It is divided into *Pound-open*, and *Pound-cloſe*; *Pound-open* is not only the *Lord's Pound*, but his back-ſide, court, yard, paſture-ground, or any other place whatſoever, as when a larger number of cattle are *impounded* more than the *common Pound* will contain, they may be driven into the lord's back-ſide, court, yard, or upon any of his *demeſne* lands, which in law is equal with the *common Pound*, and to which the owner of the beaſts ſo impounded, may come to give them meat and drink without offence of their being there; whereas the other is contrary, *viz.* ſuch a Pound as the owner cannot come to for the ſaid purpoſe without offence, as a cloſe, houſe, *&c.*

PREDIAL-TITHES.

Theſe are they which ariſe and are paid of things which ſpring and grow from the ground, as corn, hay, fruit, *&c.*

PRU-

PRUNING *of Foreſt-trees.*

For large trees, it is beſt not to prune them at all, unleſs urgent neceſſity requires it, and then avoid taking off all large boughs as much as poſſible, obſerving the following general rules: *Firſt*, If the bough be ſmall, cut it ſmooth and cloſe, and the bark will quickly cover it, but let it be done a little ſloping the better to caſt off the wet. *Second*, When the bough is large, and the tree old, make the amputation at ſome ſmall diſtance from the ſtem, or where any young ſhoots are found to iſſue out of the ſides thereof; but by no means cut the branches cloſe to the bole, which will be a means to convey the wet and water to the heart of the tree, and will abſolutely decay and kill the whole body. *Third*, All boughs that grow upright, are not to be cut croſs over, but ſloping upwards; and thoſe boughs that lean from the head, are to be cut ſloping on the lower ſide. *Fourth*, If a tree grow crooked, make an amputation at that place ſloping upwards, and nurſe up a principal ſhoot for a leading branch, unleſs of that ſort which are apt to die when headed, of which beech is the worſt; but young crooked trees are made ſtraight by ſhredding up the ſide branches till you riſe above it. *Fifth*, In timber trees, be ſparing in cutting off their heads, more eſpecially ſo in thoſe that have a great pith, as the *Aſh*, *Walnut*,

&c. likewiſe in all ſoft woods, as the *Elm*, *Poplar*, *&c.* *Sixth*, If a tree grow too top-heavy, or has a large top, it is to be abated to lighten it, which will prevent its being broke by high and boiſterous winds, and is beſt done by thinning ſome of the boughs that ſhoot out of the ſides of the main branches, ſo as to let the wind have a more free paſſage through them; this is much better than amputating the main branches themſelves, more eſpecially if deſigned to ſpread, and nothing is more beautiful, where room and convenience both admit of it; but if a tree be deſigned to riſe in height, this is done by rubbing off the buds as they put forth in the *Spring*, and by ſhredding up the ſide ſhoots. *Seventh*, If the ſide boughs ſtill break forth, and the top has a proper and ſufficient ſupport, give the boughs that put forth in the Spring, a Summer-pruning, in the beginning of July, cutting them very cloſe: this will cauſe the bark to cover the ſear and kill the bud, ſo that it never ſprings again; and is the only method to make a tree grow with a fine ſtraight and handſome body.

As to ſhrowding of trees, only implies the cutting off the top branches, which is commonly done to trees that are not intended for, or are unfit for timber, but deſigned only for a preſent advantage, by lopping for fuel: theſe are preferable to a *copſe*, in that they need no fence about them, ſtanding alſo out of danger, and free from the browſing of cattle, *&c.* and which have the bene-

fit

fit of grazing under them; beſides, the ſtocks taken in time, before they grow hollow or decay, yield ſound and good timber, fit for ſeveral uſes, and at worſt, are good fuel: and as theſe *Pollards* may be raiſed in hedge-rows, borders of *fields*, and other ſpare places, where they may little injure the land, they prove good ſhelter for cattle; but yet, a coppice being of a quicker growth, makes a fair balance for all incumbrances attending it.

As to the ſeaſon for ſhrowding and topping, or heading of trees to reduce them to pollards, it is not to be done till they have taken faſt root in the earth, and ſo ſtood *three* or *four* years, after which it may be done at ſuch height as is thought moſt convenient, ſo it be out of the reach of cattle; either at the beginning of Spring, or at the end of the Fall, and for the harder wood it matters not at which of the times: except Oak, which frequently retards the growth, and ſometimes quite exanimates it; but all pithy and ſoft woods are beſt topt and ſhrowded in the Spring, leſt the Winter injure them. As to the performance, the ſtump muſt be always cut ſloping and ſmooth, the better to caſt off the wet, and preſerve the tree from putrefaction; but the head of the *Poplar*, or any of the ſoft woods, are not to be taken off (*before unſhrowded*) that grow upright and ſmooth, after they are *ſixteen* or *eighteen* inches round, unleſs ſome collateral branch be ſpared to attract the riſing ſap.

PYRACANTHA.

This tree is to be admitted as a principal one for fences, it yields and produces a very ſtrong and firm prickly branch, and ever-green leaves: it is quick of growth, and raiſed either of the berries, which hang on the tree moſt part of the Winter, and lie as long in the ground e're they ſhoot forth, as the *Hawthorn-berries*; or may be raiſed of ſuckers or ſlips.

Q.

QUEACH,

A thick, buſhy plot of ground, a place full of ſhrubs and brambles; but in Northamptonſhire, a wet ſpuey piece of ground is called a *Queach*.

QUICK-BEAM.

It is a ſort of wild Aſh, and by ſome accounted ſo, and by others called Witchen, its bark and leaf alſo much reſembles the Aſh, only this is a little jagged or indented upon the edges, ſomewhat ſmaller, and longer in proportion to its bigneſs; and inſtead of keys it bears red berries, which are preceded by bloſſoms of an agreeable and pleaſant ſmell: theſe berries are produced in October, when they may be ſown in a light mould well prepared, and when grown to a competent ſize are to be tranſplanted into the nurſery, there to ſtand till fit and of a ſufficient ſize to ſet off where

where they are to abide: this tree riſes to a reaſonable ſize and ſtature, is moſt commonly ſlender, and ſhoots upright, and has a fine ſmooth bark, delighting in mountains, woods, and a fine light ſoil; it is a very tough wood, and is all heart. It is common in Wales to plant this tree in church-yards. It is excellent wood for the wheelwright, &c.

QUINCUNX.

What I in this place mean by the word, is, the figure of a plantation of trees in parallel rows in length and breadth, and in ſuch order, that the firſt tree of the ſecond row, is planted in the middle of the diagonal of the ſquare found by the two firſt trees of the firſt row, and by the two firſt trees of the third row, five of theſe trees are repreſented by the number five on the cards; but much better by a multiplicity of the letter X. and according to the quincunx in the planting of beans, to which I refer you.

R.

RAGS.

Theſe are a very great improver of chalky, binding lands, as is alſo the offal of the glue-boilers, and all refuſe of the felt-mongers, &c. But the refuſe of the two laſt agrees with any ſort of lands, and are great improvers. They are to be chopt very ſmall, and ſown immediate-

ly after the ſowing of the corn, more eſpecially the Rags. Four and twenty buſhels are commonly ſown upon an acre.

RAPE, *and Cole-ſeed.*

This is a valuable commodity, a good crop of this is worth the land that bears it, and often more; ſo that land for this purpoſe is let at a great price. It is moſt commonly ſown in marſh and fen-land, or on land lately recovered from the ſea; but any other land that is rank and fat, and of a deep ſoil will do, eſpecially that lately broke up from paſture. The Cole-ſeed is the beſt, and the biggeſt and faireſt ſeed is to be procured, which muſt alſo be dry, and in colour like onion-ſeed: that from Holland is counted the beſt, I ſuppoſe becauſe fetched the furtheſt, and to encourage the trade of our good neighbours the Dutch, when a great deal of excellent ſeed grows in our own kingdom, more eſpecially near the ſea-coaſt. It is to be ſown about Midſummer; but firſt the land is to be well ploughed, and laid even and very fine. A gallon or five quarts will ſow an acre, and the ſeed is to be mixed with ſomething elſe, the better to ſow it as is clover. The time of reaping it is, when half of the ſeed looks brown. It is to be reaped as wheat, and two or three handfuls of it laid together till dry, which will be in about a fortnight, all which time it is not to be ſtirred nor turned, becauſe this

this ſheds the ſeed. It is the beſt way to gather it up in ſheets, and ſo carry it to the barn. The largeſt ſeed is to be immediately threſhed out, and the reſt as ſoon as it is come to its proper colour. It is ſown for two uſes, *viz.* to feed ſheep, *&c.* in the Winter, and for making of oil: it is alſo very fit to prepare land for wheat, barley, *&c.*

RAY-GRASS.

With this graſs the farmer may improve any cold ſour clay or weeping lands; it is alſo proper for drier up-land grounds, more eſpecially ſtony, light or ſandy lands, and ſuch lands that are improper for St. Foyn. It is preferable to moſt other graſſes, as it refuſes no ſort of ground or ſoil, thriving upon all, bearing the Summer drought and the Winter's cold, and comes in the Spring the ſooneſt of all other graſſes, when it can hardly be over-ſtocked, for when kept down it is the ſweeter. It is excellent hay for all ſorts of cattle, and has performed wonders upon unſound ſheep. The beſt way of ſowing it is with clover and trefoil, all in equal parts; but others ſow two parts Ray-graſs, and of the other, each one part, trefoil is very agreeable to ſow with it, for like this, it agrees with all ſorts of lands. Some ſow three buſhels of this mixt with clover; but two buſhels and a peck is enough for an acre when the three ſorts are mixed together. It is a thin ſpiry graſs of itſelf, and will not be of any bulk unleſs thickened by the other.

RED-

RED-OATS.

In the North, and even as high as Staffordſhire, there is a ſort of Red and naked Oats, extraordinary good for the making of oatmeal, becauſe the kernel thraſhes out of the hull as wheat, *&c.*

REEKS.

By Reeks, I here mean Hay-reeks only. Hay carried to the Reek, and laid up greeniſh, ſo that it may take a good heat, becomes of a rediſh or rather of a fox colour, which is allowed by the moſt eminent graziers to be the beſt for feeding oxen and other large cattle, becauſe it makes them drink, which greatly haſtens their fattening, as does ſun-burnt graſs, provided the cattle have plenty of water: but ſometimes hay is ſo haſtened to the Reek, that when a great quantity is laid together, it takes fire by its over-heating, and conſumes all, to the great loſs and diſappointment of the owner: in order to prevent which, it will be neceſſary in the making a round Reek; in the bottom, or near it, to ſet a twig baſket, ſkip, *&c.* which as the Reek riſes is to be pulled up, and ſo carried on to near the top, which will prevent the before-mentioned accident, and in a large long Reek, two or three may be carried up in the ſame manner: one at every twelve feet diſtance, or thereabouts, according to the length: but when a Reek is in great danger of firing, it is common to cut a hole

a hole down the middle of it almoſt to the bottom, which is very hard to be done by the workmen; one perſon not being able to work more than half a quarter of an hour, or ten minutes at a time; therefore in order to rectify this alſo, it will be proper by a ſcrew jack or jacks, and blocks or ſlabs of wood, to take the Reek upon the windy ſide, about four feet from the bottom, and lay it a little to the other ſide, ſo that it opens a foot or eighteen inches, this may, if neceſſary, be done alſo higher in the Reek, which will cool it in a day or two; ladders, *&c.* may be ſet to it on the other ſide to prevent its falling, and when it is come to a proper temper, may be let down to its former place. It may be proper to pull two or three ſmall holes with a hook to meet the *chaſm* on the oppoſite ſide, ſo that the air may draw quite through,

ROOD.

This not only ſignifies a *wand*, or ſmall ſtick, but in land-meaſure, ſixteen feet and a half, by *ſtatute*; but in Northamptonſhire eighteen feet, and in Staffordſhire, and ſome other parts of the kingdom, twenty feet; in hedging, ditching, cutting of wood, *&c.* it is the ſame as pole or perch.

ROSLAND.

Heathy land, or land full of ling; alſo wateriſh, or mooriſh land. *Rhos*, in the ancient Britiſh or Welſh language, ſignifying a marſhy plain.

ROT,

ROT, in *Sheep.*

In moiſt, hazey, and wet years, ſheep are incident to this diſeaſe, feeding in the very ſame ground, where in drier years they are quite clear of it. This diſtemper does not altogether ariſe from too great a plenty of wet, but alſo from a certain putrefaction of the air and graſs, which breeds great numbers of *ſpontaneous* reptiles and inſects; which the ſheep greedily devouring with the graſs, beget in them a ſort of *plethorick* diſorder; the veſſels being fuller of humours than is agreeable to nature, bring on that deſtructive diſeaſe called the *Rot*. There are ſeveral preſcriptions for this diſorder, and all agree, that it muſt be taken in hand on the firſt approach, ſo that in the beginning of *wet* Summers, ſheep ſhould be kept on barren and dry lands, and in Winter be fed with the hardeſt and ſoundeſt hay, and moſt aſtringent fodder; and as ſome grounds produce a ſoft graſs, and are more ſubject to breed this diſtemper than others, different cattle are to be fed thereon, and not ſheep.

Putting of ſheep into ſalt marſhes has been found effectual in this diſorder; which gives credit and reputation to Mr. Markham's preſcription, who orders their mouths to be rubbed once a week with *adraces*, which is a ſalt brought hither from Spain: by the uſing of this ſalt, he ſays, there is no fear of this diſtemper. But if they are already infected,

infected, which it is eaſily diſcerned by their eyes: ſome order them to be penned up in a barn, *&c.* in which are to be ſet proper troughs, where they are to be fed with oats a day or two, intermixed with *bay-ſalt*, well ſtamped or decrepitated, and after that a greater quantity, till they begin to diſlike it, then clean oats are to be given them for a day or two more, and then to be ſerved with ſalt as before, which is to be purſued till their eyes recover their natural colour, which is an evident ſign of a perfect cure. The following experiment has alſo been found uſeful, ſteep the *regulus* of *antimony* in *ale*, with a little of the juice called *grains*, and a little *ſugar*; give the *ſheep* two or three ounces of this compoſition, after a day or two's intermiſſion betwixt each time. There is a manifeſt difference or degree of rottenneſs in ſheep; for when the liver only is become foul and tainted, the fleſh is eatable, and may be accounted wholeſome and good meat; ſo that in this caſe the ſheep cannot be ſaid to be rotten, but only ſomewhat afflicted with the diſeaſe called the Rot; but when the fleſh is tainted as well as the liver, it may be ſafely affirmed that ſuch ſheep are rotten.

ROTHER-BEASTS.

A word uſed in old ſtatutes, and ſtill in the Northern parts of England, for horned cattle, as cows, oxen, ſteers, heifers, *&c.* whence *Roſoth* or *Rother-ſoil*, in Herefordſhire, *&c.* is taken for the ſoil or dung of ſuch beaſts.

ROUGH-

ROUGHINGS,

In ſome places ſignifies latter paſture, or graſs that comes after mowing. And ROWEN, ſignifies rough paſture, or full of ſtubble and weeds, and *Rowen-Hay*, is latter hay, or hay made from a ſecond mowing; both the words partly imply the ſame thing.

RUNT,

A Scotch or Welch cow, a cow, ox, ſteer, *&c.* of a ſmall ſize.

RUSHES, FLAGS, *&c.*

Theſe are great annoyances to land, and are moſt effectually deſtroyed by draining, ſo that the drains be cut below their roots, to take away the matter that feeds them, *vide* Drains, *&c.* they are alſo deſtroyed by laying aſhes and ſoot upon them, and alſo by ploughing them up, and laying the land in very high ridges.

RYE,

Is a grain generally known, and delights in a dry warm land, but will grow in *almoſt* any ſoil, ſo that the earth be well tempered and looſe. The time and ſeaſon of ſowing it is in September, after the ground is well prepared by Summer ploughings, and in dry weather, for the rain ſoon drowns it, which agrees with the old phraſe, *Sow*

Rye

Rye in the duſt, and Wheat in the dirt. It is quick of growth, ſoon riſes after its ſowing, and comes to earing very early, commonly about Phil. and Jac. and comes to perfection the firſt of all white grains; yet in ſome places it is cuſtomary to ſow Wheat and Rye mixt, which is called *meſlin* or *maſlin*, which grow up and are cut down together. Dung need not be laid ſo thick and in ſuch quantities upon Rye land as upon other, for a ſprinkling will greatly mend the crop. About three quarters upon an acre is the common produce, on ſome lands about twenty buſhels.

For the keeping of Rye meal, *or indeed any other ſort*, there is no better method than to bolt and ſearch it from the brans, but being ſeparated, it is apt to putrify and get muſty, but being ſo cleanſed, it may be barrel'd up in dry clean caſks, forcing it in as hard as poſſible, and heading the veſſel up cloſe.

S.

SAINT-FOIN.

It is alſo called *Holy-hay*, *Medick-fodder*, *Spaniſh-trefoil*, and *Snail* or *Horned-clover-graſs*. In England it has obtained the preference of *clover*, as continuing much longer in proof, for it has been known to grow and thrive on ſome poor lands for twenty years, and has ſo far improved the ſame, that land of five or ſix ſhillings an acre, has been improved for the aboveſaid twenty years together,

to

to no leſs than thirty ſhillings an acre, and yet continued to be good: it will grow and thrive on the pooreſt and barrenneſt land in the kingdom, except on blowing and ſheer ſlight ſands, and all clays and other cold wet grounds, which are very improper for it, and ſuch it utterly abhors, and on rich land the weeds choak it; beſides, inſtead of impoveriſhing, it improves the land it grows upon, for upon the wearing out of the *Saint-foin*, it may be broke up and ſown with *corn*, till it be out of heart, and then laid down with *Saint-foin* again as before.

It is to be ſown in much greater quantities than *clover-graſs* ſeed, becauſe the ſeed is much larger and lighter; it may alſo be ſown with *oats* and *barley*, as *clover*. About *four* buſhels are to be ſown upon an acre, for the reception of which the ground is to be laid very fine, rather finer than it is for barley when that is ſown alone: it ſhould not be fed upon the firſt year, becauſe its ſweetneſs provokes the cattle to bite it to the very root, ſo that if it cannot be ſpared, let horned cattle feed upon it, and by no means horſes and ſheep. The beſt time to ſow it alone is from Auguſt to September; but if with other grain, then from the beginning of February to the end of March; but the ſowing of all artificial graſſes is beſt alone, becauſe the dropping of the rain and dews from the grain falling upon them, is very prejudicial, and the earlier it is ſown in either of the abovementioned

tioned ſeaſons, the better. Some keep great cattle from feeding upon it till the third year, becauſe they think the treading of great beaſts hurts it before it has got a ſtrong root. If preſerved for mowing, it ſhould be laid early, that it may be cut the latter end of May, when in its full pride and bloſſom, before the flower fades; ſo cut, it makes excellent hay, feeds oxen ſurprizingly faſt, and breeds milk in abundance, and that very rich. In Autumn, and the fore-part of the Winter, ſheep may feed upon it, and it will ſoon feed them.

SALLOW.

In ſome places it is called *Goats-willow.* It is a plant eaſily raiſed, and of great uſe, being planted within reach of the water, on a flat or plain, and withal, mooriſh ground; it is ſure to thrive, and will grow very faſt. (*Vide Withy and Willow.*)

SAND.

By experience, this is found to be very advantageous to cold, tenacious, ſtiff clay grounds, for it warms them, and unlocks their binding, and other evil qualities. *Sand* dug out of the bowels of the earth, has but little fruitfulneſs in it; but nevertheleſs it is of good effect to looſen the binding quality; but the beſt ſands for the improving land are thoſe out of highways, or from hills, occaſioned by the *impetuoſity* of rains, or that taken out of rivers: theſe not only unlock

and looſen the ſoil, but add a richneſs to it. Mr. Blithe adviſes, for the increaſing of ſoil in Winter, where it is cuſtomary to pen ſheep in a *ſheep-houſe* (or *cote* them, as it is called in Hertfordſhire) to lay therein ſeveral loads of *Sand*, brought from the highways, ſtreets, *&c.* which by the ſheeps dung and their urine, an excellent manure is made for cold clay lands. When the firſt part is well impregnated with the dung and urine of the ſheep, it is to be laid in ſome hovel, *&c.* and more brought in, ſo that in a ſhort time a good quantity of rich manure may be made for a cold clayey ſoil. As to ſea-ſand, it is the richeſt of all others, and is what comes from the ſea and its creeks, with which all lands lying within two or three miles of the ſea, may be very highly improved; in the Weſt of England more particularly, a very great advantage is made by it. The chief virtue of it lies in its ſaltneſs, and its being impregnated with the fat and filth that the ſea gathers from land floods, the fiſh and other things that putrify in it, and nothing contributes more to its virtues, than the fiſh ſhells that are mixt with it, which the agitation and working of the ſea breaks as ſmall as the ſand itſelf, ſuch ſhells being endowed with a very rich ſaltneſs. Sea-ſand is of three colours; that about Plymouth and the ſouthern coaſts, is of a blue or greyiſh colour like aſhes. Weſtward, and near the Lands-end, it is very white, and in Scilly gliſtering. On the north-ſea, and about Padſtow

in

In Cornwal, and from thence eaſtward to Lundy, it is of a fox colour, and compoſed moſtly of cockle-ſhells. In Falmouth near St. Maw's caſtle, there is a ſort of ſand much reſembling coralline, that lies under the awſe or miry ſedge, which muſt be firſt removed before the *ſtrata* can be come at. That ſand is accounted beſt which is of a red or reddiſh colour, the blue next, and the white worſt of all.

This Sand as ſoon as it is brought is to be laid on the land, for when it is green it is fulleſt of good qualities, and is richeſt. The *farmer* commonly takes four crops of corn from lands ſo manured, and then lays it down for paſture ſix or ſeven years before it is ploughed up again: the graſs proving good, is generally mowed the firſt year, running moſtly to white *honey-ſuckle* and wild *clover:* in ſome ſort of lands the graſs is but ſhort, yet yields plenty of good milk, and fattens cattle very ſoon; it alſo cauſes the corn to yield a large long ear, and ſhort ſtraw, ſo that ſometimes a ear of barley is almoſt as long as the ſtalk it ſtands upon.

SEA-WEEDS.

Theſe and thoſe of rivers are uſed in ſeveral parts of the kingdom for the improvement of land, and have anſwered very well; particularly *Ore-weed*, which is much uſed for that purpoſe in Cornwal, where it is very much eſteemed.

SEAM.

It is a meaſure of corn, containing eight buſhels, the ſame as quarter.

SEAR-LEAVES.

Theſe are withered or dead leaves of a tree, as in the fall; and Sear-wood is dead boughs cut off from foreſt-trees.

SEASONING *of Timber.*

The timber being felled and brought to a proper place, is to be laid under a hovel, *&c.* prepared for the purpoſe, out of the wind and ſun, laying one piece upon another; placing ſome ſhort blocks betwixt, which will preſerve them from that mouldineſs they commonly contract in ſweating, and this commonly produces a ſort of *fungus*, eſpecially from the ſap; but ſome keep timber as moiſt as poſſible, either letting it take all weathers, others ſink it in water; the laſt of theſe is proper for fir, and in ſome caſes for other timber too, for it makes it ſtrip the better and cleaner, and more eaſily than it otherwiſe would do. As to ſeaſoning of boards; it is common to lay them a fortnight in water, and then ſet them upright in the ſun and wind, ſo that it may freely paſs through them, more eſpecially to take the Summer heats (*which alſo is the beſt time for wainſcotting, flooring*, &c.) and are to be turned daily: new

new ſawed boards ſo uſed, will floor much better than thoſe that have been ſtacked up ſome years in the dry, or within doors. But to prevent all poſſible accidents, let the boards intended for a floor be indifferently ſhot, and ſlightly tacked in their places, and ſo lie for a year or more, then let them be taken, worked up, and laid immediately, and whether the floor be a doubled one or otherwiſe, they will neither ſhrink or riſe, lying as one piece; but in flooring, never lay a board more than nine inches over, and ſawed out of quartered timber: of all boards, thoſe of Elm are moſt ſubject to riſe; the reaſon of which, I attribute to the not quartering the timber from which they are ſawed, it not being common to quarter Elm; but for what reaſon I cannot tell; but when a floor is to be laid of this ſort, firſt let the *ſtick* be quartered, and I apprehend a floor laid of ſuch boards, will be as free from riſing as one laid of any other ſort of boards whatſoever.

Water-ſeaſoning among wheel-wrights is of very great ſervice, eſpecially in Elm (*although felled green*) for ſudden uſe, and laying it four or five days in water (*ſalt water beſt*) it becomes very well ſeaſoned, and may be uſed immediately. Some bury it in the earth, others in wheat, whilſt others ſeaſon with fire.

As to ſeaſoning of piles, poſts, *&c.* that are to ſtand continually in water, or only in the earth; it is ſaid that the Venetians burn and ſcorch the

timber (*for ſuch purpoſes*) in a flaming fire, continually turning it round by a machine, till it has contracted a hard, black, coaly cruſt upon it, by which means the wood is brought to ſuch a degree of hardneſs and dryneſs, that neither earth nor water can penetrate it. There are ſeveral other ways of preſerving timber, as waſhing it over ſeveral times with lindſeed-oil, and painting it with ſome proper colour made up with ſuch oil, and being repeated thrice over, is a good defenſitive againſt the weather, worm, *&c.* Oil of walnuts is very good for the purpoſe, but the oil of *juniper*, or that of *cedar*, is preferable to all, but theſe are too dear to be uſed in common; but for flood-gates, and thoſe of locks, for ſluices alſo, and for preſerving of wainſcot that is againſt a damp wall, *&c.* take pitch and tar enough to bring it to a proper conſiſtence, and with a mop, *&c.* dipt in this mixture, daub the timber and backſide of the wainſcot well over, and immediately take the groſs powder of cockle, muſcle, *&c.* ſhells mingled with a half or third part of *ſea* or *drift* ſand, and throw it upon the firſt mixture, which hardens it into a cruſtacious matter, and arms it againſt all aſſaults of wind and weather, ſo that by roaſting that part that ſtands in the earth, and arming that part that ſtands in the water, according to the manner here preſcribed; ſuch timber will become almoſt incorruptible; but if pitch only be firſt burnt in by a hot iron, and then the above coat laid on, it will be ſtill better.

SEED

SEED *for Corn.*

Every *Seed* differs in nature from another, for which reaſon it requires a different nouriſhment, and this being a thing ſo well known, that it may be thought needleſs for me to inſert it; but notwithſtanding, as what I may offer and advance may not be known to all, nor underſtood by every ſteward and farmer, I ſhall therefore proceed: and Firſt, it is neceſſary to change, and to procure ſeed from that land which has been ſo often tilled, (which in ſome places is called *Hock-land*, and in Berkſhire, every years land) into land newly broken up, and from dry, barren and hungry land, into that which is rich, fat, and of a better ſoil, *viz.* It is common to change the ſeed from grounds of one nature, into others whoſe nature is quite different to thoſe the ſeed was taken from, which by experienced farmers is thought, nay found to be very advantageous, as it is cuſtomary in Buckinghamſhire for thoſe of the *vale* to buy their ſeed from the *chiltern*; which ſeed is alſo bought up, and ſent into divers other counties, for the reaſons aforeſaid.

As to preparing the ſeed for ſowing (*wheat eſpecially*) ſome ſteep it in dung-water, or water impregnated ſtrongly with cow-dung, which is thought to be but of little ſervice, being too cold, which rather retards vegetation than promotes it: ſome others prefer ſheep and pigeons

dung, which is much better; while ſome others would have it ſoaked in new wort or ale (*which I think too troubleſome and expenſive.*) Some farmers ſteep their ſeed-corn (*wheat eſpecially*) in a ſtrong brine of ſalt, or ſea-water, ſtirring it often, every time taking off the light corn that ſwims on the top; in this brine, which is to be ſtrong enough to bear an egg, it is to lie twenty-four hours, and by ſcumming off the light and ſwimming corn, you greatly prevent the ſmut; for it is ſuppoſed, that the ſmuttineſs ariſes and comes from the weaker and infirm grains: after the corn is taken out, it is to be laid upon a floor, when it is to have quick lime ſifted upon it, then turned, and more lime ſifted upon it, ſo that in fact, the grain and lime will lie as it were S. S. S. There is yet another method of ſteeping ſeed-corn, which is this, pour as much water into quick and unſlaked lime, that it may ſtand four inches above the lime, in which the corn is to be ſoaked twenty-four hours, and then dried; and which, ſteep it again as before, repeating it three times; and while it is wet, lime it according to former directions. Liming of corn in a great meaſure, prevents its being devoured by *grubs*, and other pernicious *inſects*, for the lime wherewith it is clothed, arms the grain, and defends it from ſuch enemies; for all ſuch vermine abhor lime, for the very touch of it is mortal. It is likewiſe neceſſary every year to change the ſpecies of grain, never ſowing the ſame

ſort

ſort two years together, which ſeems to be an ancient piece of huſbandry: according to Virgil,

There changing ſeaſons thou ſhalt *Barley* ſow,
Where pleaſant *Pulſe* with dangling *Pods* did grow,
Where brittle ſtalks of bitter *Lupins* ſtood,
Or ſlender *Vetches* in a murmuring wood.

By changing the ſeed, the fermentation in the ground is greatly augmented; for every different ſpecies draws a different juice for its ſupport and nouriſhment, ſo that if land was to be ſown one ſort of grain for ſeveral years together, the juice or vegetation ſuitable to the nouriſhment of that ſpecies of grain would be ſo exhauſted that the latter years crop would be worth nothing, being degenerated to a ſpecies hardly a-kin to the *ſemen* that produced it.

SEMINARY,

A ſeed-plot or nurſery for the raiſing of trees or plants.

SHACK.

In Norfolk and Suffolk, *&c.* it ſignifies the liberty of Winter paſturage; the lords of manors having the privilege to feed their ſheep at pleaſure upon their tenants lands for the ſix Winter months. In Norfolk it alſo ſignifies to have common for hogs from the end of harveſt till ſeed time in all peoples grounds; whence to *go at Shack* in that country, is as much as to go at large, and *Shack-time* is the ſeaſon when *maſt* is ripe and falls from the trees.

SHARPING

SHARPING CORN,

A cuſtomary preſent of corn, which in ſome parts of England, at Chriſtmas, every farmer makes to his ſmith, for ſharpening his plough-irons, harrow-tines, *&c.*

S H A W.

A country word for a wood that encompaſſes, or goes quite round a field or cloſe.

SHEEP-DUNG.

This dung is very good manure for all ſorts of *tillage* land, and affords a very high improvement to clay lands, and by ſome thought to be richer than that of ſwine; but that cannot be, becauſe ſwine are of a hotter nature than ſheep, and even hotter than any other domeſtic creature. And as Sheep-dung cannot ſo conveniently be gathered together as other dungs, it is conveyed upon the lands by folding the *ſheep* upon it, penned up together by *hurdles*, by which means both *dung* and *urine* are ſpent upon the land, which ought to be turned in with the plough as ſoon as poſſible, to prevent its virtue and richneſs being exhaled by the heat of the ſun; it is certainly the beſt way to plough it in, in hot dry weather more eſpecially; but lands ſo manured in the *Autumn*, may be ploughed at leiſure. In Eſſex it is common for the *farmers* to fold the ſheep in covered folds, and mix their dung with ditch earth, mud, *&c.* which cauſes the dung to ſpread, and go much further.

further. In Glouceſterſhire, &c. the farmers houſe their ſheep at night, and litter them with ſtraw, and when one quantity is converted into ſoil, they add freſh, ſo that a whole Winter affords a great quantity of dung where there is a large flock kept, and is found by long experience to anſwer the trouble; ſo that by folding in Summer, and houſing in Winter, all their dung and urine are preſerved for the land, in tillage; but this is meant only for breeding ſheep, and fat houſed lamb; ſheep intended for ſlaughter, are to feed and lie at large, although ſome are fed at the houſe; but theſe in ſmall numbers.

SHEEP-PENS, *and the increaſe of Sheep.*

Theſe are to be made at ſome convenient corner of a paſture, or where ſeveral fields, commons or paſtures meet, ſo as to be common to them all, they ſhould alſo be erected on a dry ſpot of ground, and ſtones laid at the bottom, to keep the ſheep, &c. dry and clean, whilſt they are under examination; theſe pens ſhould alſo be divided into ſmaller partitions to hold about forty each, with gates to them, that when they have been drawn they may be ſafely ſhut up; for when the pen is divided into parts, the ſheep, &c. may be the better ordered. And as to ſheep-houſes, as they are proper edifices to keep ſheep warm in the Winter-ſeaſon, and to preſerve their ſoil, they are to be made low, and a third part longer than broad, the ſides lined up with *furz* or boards to make them more warm, they are to be made large rather than ſmall, the bottom

tom ſhould be laid with large ſtone ſlabs, and very level, that the urine run not away, but be dried up by proper litter for the greater increaſe of ſoil. *Vide Sheeps-dung.* It would be proper to have the ſunny ſide ſet with ſome ſort of lined moveable hurdles, that about noon, when the ſun ſhines, it may be laid open to give the ſheep a refreſhment by letting them into ſome little cloſe or croft wherein the ſheep-houſe ſtands: it is alſo neceſſary that this houſe be well covered.

As to the increaſe of ſheep, it is ſurpriſing; for ſuppoſe, they bring one lamb each, and that yearly, as appears by the annexed table, where at firſt ſight may be ſeen the increaſe of 10 *ewes*, with each a ewe lamb, from the beginning for any number of years not exceeding 21. This table ſhews alſo the increaſe of any ſtock beginning with 20, 30, 45, 67, or 100 ewes; with as many lambs, ſuppoſing them half ewe lambs, half ram lambs, for any number of years not exceeding 20, 19, 18, 17, or 16 years enſuing. Therefore in this table it is to be noted, that the firſt ſix columns ſhew the number of years, anſwerable to the increaſe of each reſpective ſtock according to the number begun with. The firſt column ſhews the increaſe of that ſtock begun with 10; the ſecond for a ſtock begun with 20; the third for a ſtock begun with 30; the fourth for *one* begun with 45; the fifth with a ſtock begun with 67; and the ſixth and laſt for the increaſe of a ſtock begun with 100, for any number of years contained in the table. The ſeventh column ſhews the

the number of ewes increaſing from each reſpective ſtock beginning with 10, 20, 30, 45, 67, or 100, for any number of years anſwerable to the number in their reſpective columns of years. The eighth column ſhews the annual increaſe of the ewe lambs. The ninth that of the ram lambs of each particular and reſpective ſtock for the like number of years: and the tenth column ſhews the ſum total of the increaſe of the living ſtock produced only from thoſe ewes capable to bring forth young, or able to bear; and their numbers are proportioned according to the number of years, reſpecting the number of years they are able to bear only, or that it is cuſtomary to keep them for breeding, which according to the moſt ſkilful and able *judges* are ſix years: ſo that ſuppoſing a ſtock to begin with 10 only, it has a proportional and gradual increaſe to the ſeventh year, in which year it falls ſhort 10, for then the firſt 10 ceaſe to bear, or are ſuppoſed to leave bearing, ſo conſequently fatted for the knife: ſo that the ſeventh year there are only 140 breeding ewes, whereas had the firſt 10 brought forth again, there would have been 150. The eighth year there are but 200 bearing ewes, the increaſe between the firſt and ſecond years 10 being ſubducted as ceaſing to bring forth. The ninth year there are but 290 bearing or breeding ewes, the increaſe between the ſecond and third years (10 alſo) being ſubducted as ceaſing to bear. The tenth year there are but 420 breeding ewes, the increaſe between the third and

and fourth years (being 15) and ſubducted as ceaſing to bring forth or ceaſing to bear, *&c.* Theſe differences every year to be ſubducted after the firſt ſix years are placed in the eleventh or laſt column of the table, thoſe numbers or differences being only the differences of each year's increaſe of the prime ſtock from the firſt year to fourteen, as is eaſily proved by ſubducting each foregoing year out of the next ſucceeding one; which ſaid difference (being every year the number of ewes ceaſing to bear) is to be ſubducted after the ſixth year, out of the number of breeding ewes as aforeſaid, which gives the true ſum of the increaſe; ſo that the tenth column is the total ſum of the living ſtock *(caſualties always excepted)* the eleventh column, the total ſum of the ewes ceaſing to bear, which two numbers added together gives the entire or ſum total of the whole ſtock every year. As ſuppoſe a perſon begins with a ſtock of 10 the twelfth year, the increaſe will be 879 ewes, 439 ewe lambs, and 440 wethers, and the total number of the living ſtock 2819, beſides 33 ewes ceaſing to breed (being the difference between the *fifth* and *ſixth* year, *viz.* between 67 and 100) ſo that the whole number of the live ſtock, and ſtock to be killed, is $2819 + 33 = 2852$. Hence it appears, that the differences in the eleventh column are to be ſubducted *(in the making of this table)* from every year's increaſe of the ewes, to produce the numbers in the table; but to be added to the reſpective numbers in the *tenth column*, to ſhew the entire

entire ſum total of the ſtock. And by doubling 20, 30, 45, and 100, will produce the increaſe of a ſtock of 40, 60, 90, and 200; ſo alſo by taking the half of 10, 30, 100, and 140, gives the increaſe of a ſtock of 5, 15, 50, and 70, all which is diſcoverable by the table almoſt at ſight. So far the *ratio* of their increaſe.

The TABLE.

Years.						Ewes.	Ewe Lambs.	Wethers.	Their Sum Total.	Differences.
1						10	10	. . .	20	
2	1					20	10	10	40	
3	2	1				30	15	15	70	
4	3	2	1			45	22	22	115	
5	4	3	2	1		67	33	33	182	
6	5	4	3	2	1	100	50	50	282	
7	6	5	4	3	2	140	70	70	422	10
8	7	6	5	4	3	200	100	100	622	10
9	8	7	6	5	4	290	145	145	912	10
10	9	8	7	6	5	420	210	210	1332	15
11	10	9	8	7	6	608	304	304	1940	22
12	11	10	9	8	7	879	439	440	2819	33
13	12	11	10	9	8	1278	639	639	4097	40
14	13	12	11	10	9	1857	928	928	5954	60
15	14	13	12	11	10	2695	1347	1347	8649	90
16	15	14	13	12	11	3912	1956	1956	12561	130
17	16	15	14	13	12	5680	2840	2840	18241	188
18	17	16	15	14	13	8240	4120	4120	26481	271
19	18	17	16	15	14	11970	5985	5985	38451	399
20	19	18	17	16	15	17376	8688	8688	55827	579
21	20	19	18	17	16	25224	12612	12612	81051	838

In

In ſeveral parts of the kingdom, it is common, in April or May, if *corn* be rank, to turn the ſheep upon it, who admire it beyond all other food; and it not only very much improves them in fleſh, but alſo cleanſes and frees them of moſt obſtructions, and makes them ſtrong and luſty; for after an open and mild Winter, and where the land is very rich without ſo eating the *corn* down, it would be ſo rank and light as to be but of little value. It is alſo common in May, to turn them into thoſe fields or grounds, ſown with beans and a ſmall mixture of peaſe, for they will eat up all the growing peaſe, and leave the beans untouched; which cuſtom is called ſheeping thoſe beans that have a few peaſe in them, and which the farmer intends ſhall be taken out, in order to have the beans clean, to keep them to a proper age for provender; for let the rate of common beans be never ſo low, the before-mentioned ſort is ſure always to bear a good price, *viz. old beans.*

SHELLS.

All Shells, oyſter-ſhells more particularly, are great improvers of land, but they are but of little ſervice the firſt and ſecond years; yet by being continually expoſed to the weather, they will ſlack, fall and mix with the earth, and according to an experiment made by a certain gentleman, they were found to be excellent manure, and ſurpriſingly enriched the land he laid them on for ſeveral years

years afterwards, which alſo is conſonant with reaſon, for the Shells of ſea-fiſh (*eſpecially*) are nothing elſe but ſalt congealed into ſuch a form, ſo that it muſt neceſſarily when diſſolved, be endowed with a moſt fructifying quality; but if ſuch Shells were a little calcined, ſo as to make them ſlack and fall with the firſt froſt, would ſtill add to their virtue, and make them become immediately ſerviceable. They are certainly one of the greateſt improvers of coarſe, cold, ſour land.

SHINGLE,

Is a tile of cleft-wood to cover houſes or other buildings with, inſtead of clay tiles, ſlate, thatch, *&c.* much uſed in our plantations abroad.

SHORLING *and* MORLING.

Theſe two words are uſed to diſtinguiſh the different fells of ſheep: *Shorling* ſignifying the fell or ſkin after the fleece is ſhorn off the ſheeps back, and *Morling*, otherwiſe *Mortling*, the fell ſtead off after it is dead or killed; but in ſome parts of the kingdom, by a *Shorling* is underſtood a ſheep newly ſhorn, and by *Mortling* a dead ſheep.

SIKE,

A word uſed in ſome parts of the kingdom for a furrow.

SKEPE.

This is commonly pronounced SKIP, which is a large twig baſket uſed by miners, to put their

ore, *coale*, *&c.* in, and in which they are drawn out of the mine, *&c.*

S K I D.

To *ſkid* a *wheel*, *viz.* to ſtop the wheel of a coach, cart, *&c.* with a *hook*, at the deſcent of a hill: and to *ſcoat* a *wheel*, is to lay a block or ſtone behind it, to prevent its going backward down a hill, precipice, *&c.*

S K R E E N,

Is an *inſtrument* to ſift *earth*, *gravel* for *walks*, alſo a wooden frame with wire, in the manner of a ſieve, for ſeparating *corn*, *malt*, *&c.* from duſt and cockle.

S L A B,

Is the outſide ſappy *plank* or *board*, ſawed off from the ſides of timber, by which it is reduced nearer to a ſquare, and conſequently the more fit for ſawing up into boards, *&c.* for uſe.

S L A T E.

This is an excellent good material for covering of houſes and other buildings: ſome kinds or ſorts have lain upon houſes ſome hundred years, and yet continued to be ſound, firm, and good; but before Slate are laid upon a building, it is neceſſary to try their goodneſs, unleſs the quarry from which they are brought always produces good. In order therefore to try the Slate taken from a freſh

freſh quarry, *&c.* take the Slate, and knock it pretty ſharply againſt a large ſtone, and if it produces a compleat ſound, it is a ſign or token of its goodneſs, and if in hewing it does not break before the edge of the *feet* (*which is the name of the inſtrument the workmen hew them with*) there is no room to doubt of its firmneſs. The goodneſs may alſo be gueſſed at by the colour; for the deep *black blue* is apt to take in water, but the lighter blue is always the moſt firm and cloſeſt; to this may be added the touch, for a good *ſtone* feels hardiſh and rough, whereas an open one feels very ſmooth and ſomewhat oily. Another way to prove their goodneſs is, to place the *ſtone* long-ways, and perpendicular into a tub, that the water may ſtand about half a foot deep in it, taking care that the upper unimmerſed part be not accidentally wetted by the hand or otherwiſe; there let one or more ſuſpected ones remain twenty-four hours, and if it be good and firm ſtone, it will not draw water (*as the workmen call it*) more than half an inch above the ſurface of the water, and that perhaps but at the edges only, thoſe parts perhaps being a little looſened in the hewing; but a ſpungy bad ſtone will draw water to the very top; but there yet remains another methodical and infallible way; which is, firſt weigh two or three of the moſt ſuſpected Slates, and note the weight, then immerge them in a veſſel of water for ten or twelve hours, then take them out and wipe them as clean as poſſible with a linen cloth, and if it or they weigh more than before,

it denotes that ſort that takes water, a drachm may be allowable in ten or a dozen pounds, and not more.

A buſhel and a half of lime, and three buſhels of freſh water ſand will lay a ſquare of work; but if it is pin-plaiſtered, or plaiſtered to the pin, it will take above as much more; but good ſlate well laid and plaiſtered to the pin will lie a hundred years, and on good timber a much longer time. It is common to lay the ſlates dry, or in moſs only, when they are to be plaiſtered to the pin, then about the firſt quantity of lime and ſand will do.

SLUICE.

This is a frame of wood ſet in a river, pond, canal, *&c.* to let out the water at pleaſure, or on ſome emergency; and is very neceſſary for the command of water; and although ſluices are things pretty common, yet they require an experienced workman, and a good hand, to erect and fix them to perfection: they are to be framed ſo as to ſtand firm and immoveable and unſhaken, notwithſtanding the ruſh of a boat, *&c.* againſt them; for a ſmall ſtrain makes them leaky, and in ſo great a height as is needful in deep waters, a ſmall matter will do it, if not ſufficiently guarded againſt by proper abutments. Green elm is the beſt timber to lie always in the water, but heart of oak to ſtand above,

or

or in wet and dry; the drawing-piece muſt be entire, of what length ſoever it be, and the vent guarded with boxes of a ſufficient ſize, and bored through, ſo as the water may freely paſs, but no fiſh; all which is to be rammed up cloſe with clay, or it will undoubtedly ſpring a leak. Sluices are of very great importance, for when neceſſity requires a diſcharge of a great deal of water, either engines are to be applied (*which are too expenſive*) the bank to be cut, or a ſluice to be drawn: if the bank is cut, the paſſage is interrupted, and made troubleſome by the earth, and a great deal of trouble it will be to ram it up again to prevent its leaking; but Sluices vent the water without any labour, trouble, charge, or inconveniency whatſoever.

S M U T,

This is a diſeaſe in *corn* proceeding chiefly from ſowing ſmutty ſeed; whether thoſe ſmutty grains grow or not; ſome attribute it to the land being over rank and fat; this certainly cannot be the thing; for I have known land that has been rather poor than rich, produce a ſmutty crop, and moſt on that ſide the field that was moſt expoſed to the ſun; ſo that what elſe beſides the ſeed to attribute it to, I cannot tell; but ſome others attribute it, to the dunging the land with half rotten vegetables, as ſtraw, ſtubble, fern, *&c.* but this was not the caſe above-mentioned; for this field was dunged by penning ſheep upon it. The

beſt way to prevent it is, by brining and liming the ſeed before it is ſown, and by liming, or otherwiſe enriching the land with ſharp and ſalt dungs or ſoils. It is certain, that the often ſowing of land with the ſame *grain*, or land much out of heart, cauſes a ſmutty crop, and againſt which the aforeſaid remedies are effectual; but the ingenious and learned Dr. Sharrock, in his Propagation of Vegetables, p. 99. ſays, "Smut or Blaſting is the periſhing of the tender kernel, by "reaſon of a wind (*which from the effect is ſometimes called a red wind*) that too ſharply, and it "may be with ſome venom, breathes on it at "its firſt beginning to kernel; and I can ſee no "reaſon that ſuch infuſions or applications ſhould "be any defence, for it comes from an outward "violence, and therefore it is moſt uſually ſeen, "that not half a tree only, but half a bough ſhall "be blaſted, while the other half of the ſame, "that grows by one and the ſame nouriſhment, "remains free, ſound and well coloured."

SNAIL-COD *or* SNAG-GRET.

By either of theſe words, is meant a ſort of ſand that is often found at the bottom of deep rivers: it is full of ſmall ſhells, and one load of it will go as far as three loads of dung in manuring land, and agrees with all ſorts, as hot, cold, *&c.*

SOPE.

SOPE-ASHES.

Theſe are an excellent manure after the ſope-boilers have done with them, both for *corn* and *graſs*: they are good for cold and ſour lands, and very effectual for deſtroying all ſorts of weeds and trumpery. I remember them uſed by a ſope-boiler: he laid them upon a cold turf, and the effect was, that they produced wild clover and trefoil in abundance, as much as the ground could bear, when the next adjoining lands had nothing but blue ſpiry graſs, hard ruſhes, *&c.* growing upon them.

SOIL.

All ſorts of land may be reduced to the following ſorts or kinds, *viz.* ſandy, gravelly, chalky, ſtony, rocky, hazely, black earth, marſh or boggy, and clay land: it is alſo not uncommon to meet with ſome of theſe ſoils mingled together, and are much better compounded than when ſimple, eſpecially where hot and dry are mixed with cold and moiſt; for as the animal body is beſt in a temperate ſtate, ſo is the terreſtrial body: for a temperate animal body ſtands in no need of any thing to ſupport its health, but a proper temperate nouriſhment, ſo the temperate terreſtrial body ſtands in no need of any thing to produce a crop natural to it, but proper dungs to ſupport it againſt the exhaling beams of the *ſun*, which draw off its juices as the natural heat does in the

animal body; but when the animal body abounds in hot or cold, dry or moiſt humours, the phyſician applies medicines to aſſwage its diſorder, and bring it to a temperate ſtate again: ſo it is with the terreſtrial body; for when or where land is too hot or cold, dry or moiſt, the huſbandman is to apply ſuch dungs, manures, compoſts, and ſoils, proper to aſſwage ſuch diſorder, and bring it to a temperate ſtate. A great deal might be ſaid upon this head; but a man may ſee by a *ſprat*, how a *dolphin* ſwims. But to proceed: clay laid upon ſand or gravel, or ſand upon clay, is the beſt manure; and not only the nature, but alſo the depth of the ſoil is to be conſidered, and alſo what ſoil lies below the upper *ſtratum*, or that ſoil that is ſtirred by the *plough*: for the beſt and richeſt ſoil, that is not more than half a foot or a foot deep, if it lie upon a ſtiff clay, or hard cold ſtone, is not ſo fertile as a leaner ſoil of a greater depth, lying upon a marle or warm lime-ſtone, ſand, or gravel, through which the ſuperfluous moiſture may deſcend, and not ſtagnate or ſtand upon the clay or ſtone, to chill the roots of the graſs or corn. Great regard is alſo to be had to the climate and ſituation; for cold moiſt clays are much more fruitful in the *ſouth* than in the more *northern* parts of the kingdom; and alſo clays are more fruitful on the *ſouth* than on the *north* ſide of *hills* and *downs*; beſides, the natural produce of the land as to weeds and graſs, is to be duly conſidered, and when made arable, what

grain

grain agrees beſt with it, and alſo what effect proper manure and ploughing has upon it. As to the judging of the ſoil by its natural produce, take the following rules. All land that moulders into duſt with froſt, with all ſorts of warm ſoils, black mould, yellow clays, if not too ſpungy and wet, and thoſe lands that turn black after rain, are proper for *corn*. Land that produces large and fine trees, with weeds, nettles, black-thorn, thiſtles, rank graſs, *&c.* prove fruitful, and are alſo very improveable. Strawberries, betony, thyme, *&c.* declare the ſoil woodland, as camomile does a ſoil diſpoſed for *corn*. All ſoils and lands that bind after froſt and rain, that turn white, and are full of worms, and are very moiſt, that naturally produce holly, yew, box, broom, heath, moſs, *&c.* are of a cold, ſterile nature. White earth, yellow ſand, and hot ſtony gravel, are for the moſt part uncapable of much improvement, by the application of proper manures and compoſts, all being found hardly enough.

SOIL *for Timber.*

Moſt timber-trees proſper well in thoſe ſoils which will produce wheat, rye, beans, *&c.* if not exceſſive ſtony; nevertheleſs there are ſome ſort of trees that delight to grow altogether on a ſtony ſoil; but few delight to grow on a poachy clay, yet the *oak* often proſpers in it, and ſuch is preferred for its toughneſs; but of all ſorts the *cow-paſture*

paſture certainly is beſt for planting wood. Yet I have obſerved, that heathy lands, and as barren hills and grounds as any in the kingdom, have formerly and now do bear woods, groves and coppices, which with good management, may yield as much profit to the proprietors as when made arable (*for paſture perhaps they may be very unfit for.*) The woods and coppices belonging to Mrs. Arundel, at Stoke-Bŭerne Park in Northamptonſhire, yield a greater profit than the beſt wheat-land in the county. By induſtry and care, a proper quantity of acorns have repleniſhed the neighbouring lands with young ſtocks and trees, and the remainder left in the nurſeries made on ſuch the before-mentioned places, have become delightful as well as profitable *groves* and *coppices.* It is obſervable, that coarſe, ſour lands, produce very well the following ſtocks, *viz. Oak*, *Walnut*, *Cheſnut*, *Pine*, *Fir*, *Aſh*, *Wild-pear*, and *Crab*; and that ſome of them, ſuch as the *Pear*, *Fir* and *Pine*, and the *Oak* on ſome ſoils, ſtrike their roots through the hardeſt ſtony rocks. There are ſome others that will grow in any ſoil, more eſpecially ſo if committed to it in the ſeed; and in this ſtate the plants are beſt reconciled to the nature and quality of the ſoil that nurſes them; but they may be very much aſſiſted by ſtirring the ground about them for two or three years ſucceſſively. But to prepare ſome of the worſt ſoils for planting, a ſtrong plough, a Winter's mellowing, and a Summer's heat, with a proper aſſiſtance of lime, loam, ſand or rotten compoſt diſcreetly mixed, or ſimple and alone, ac-

according to the nature and quality of the ſoil, will undoubtedly perform wonders even in the moſt ſterile and unnatural ſoils. Always remember, that in ſuch places where woods, *&c.* have formerly grown, and are to be planted again, or reſerved for *paſture*, to ſtock and grub up ſuch old roots and ſtumps, for they not only ſour the ground, but obſtruct the growth of every thing the ground is intended to produce; and no ſpecies of plants will thrive well upon it, if interrupted by the rotten ſtumps and roots of its own, or any other kind: but particularly to know what *kernels*, *nuts*, or *ſeeds* are moſt proper for ſuch and ſuch ſoils, ſow ſeveral ſorts plentifully, and the ſoil will point out which it likes beſt, and is moſt agreeable to it; for ſuch as it likes beſt it will nouriſh, and moſt of the others ſtarve or kill.

SOOT.

This is a very good manure for *corn* and graſs, and is excellent for cold land over-run with moſs, ruſhes, *&c.* but ſea-coal ſoot is accounted the beſt; becauſe this coal is the moſt impregnated with ſulphur, *&c.* of all other fewel: the quantity is, from thirty to forty buſhels on an acre, which will deſtroy all trumpery whatſoever. It is alſo very good to be ſowed upon land five or ſix years before ſown with ſaint-foyn, for it very much increaſes the crop, and cauſes it to hold ſeveral years longer than it otherwiſe would do, and alſo thickens it with fine ſweet graſs, and keeps it clean of all annoyances whatſoever.

SOUR-

SOUR-LANDS.

The beſt way to ſweeten and bring them into a proper temper for the producing of a crop, is to chalk them well while they are graſs, and that the year before they are intended to be broken up; at the uſual ſeaſon, they are to be ploughed up, and in May, the weather being dry, the land is ploughed a-croſs or athwart, and harrowed with large heavy and loaded harrows, as much as four or five horſes can compleatly draw, which will pull out the greateſt part of the quitch, ſorrel, moſs, and other trumpery, which are to be burnt, and the aſhes ſpread upon the worſt part of the land, all which mellows the land ſurprizingly: this ſort of land is to be ploughed twice more, and once more well harrowed before it is ſown with rye, *&c.* but ſome of the worſt ſort of theſe lands muſt lie the following Winter, and have two tilths more before they will be fit to bring a crop of barley; but by being properly ordered in the Winter tilths, with ſome other proper manure added, they will produce very good crops for ſeveral years together. Where chalk cannot be had, lime is to be applied, mixed with horſe-dung; but in Oxfordſhire, about Chipping-Norton, *&c.* The farmer gives ſuch lands a tilth, according to its nature and condition: if it yields a good deal of graſs, he fallows it when the ſun is high, as in May, which there is called a *ſcalding fallow*, this kills the graſs-roots as aforeſaid, and makes the land fine;

fine; if it is light, and bears but little graſs, it is ploughed more early in the year, and then ſome ſpiny graſs comes up, that prevents its ſcalding in the Summer; for if it ſcalds when bare of graſs, all that the induſtrious farmer can do is too little to procure a crop.

SPADE.

In ſome parts of the kingdom, any domeſtic gelt beaſt is called a *Spade*. It alſo ſignifies a tool to dig the ground with, which in ſome parts of the kingdom is alſo called a *Spiter*; and it is alſo common to ſay the ſoil, *&c.* is *one*, *two*, or more ſpit deep. This tool is made in ſeveral different forms and ſizes, according to the ſeveral uſes it is intended for: the common one is made ſeveral ways, but the thinneſt is the beſt, ſo that it be well wrought, and wants not its due ſtrength at the ſides. In Northamptonſhire, and ſeveral other parts of the kingdom, I have obſerved a ſort of *Spade* called a *Banking-iron*, commonly uſed in the cutting up *ant-hills* and *mole-caſts*, *&c.* The handle is like that of a common ſpade, but the iron made in the form of a *half-moon*, and the handle let into it by a ſocket. There is another ſort commonly uſed in digging of ſtiff clays; but too ſmall for a lighter ſoil: the length of the ſpit is about nine inches and a half, and the breadth next the handle about ſeven inches; but at the bottom edge, not more than five inches and a half. In the fens, about Deeping in Lincolnſhire, *&c.* there is a *Spade* made in form of a heart upon the *cards*, the

the edges on the ſides made as ſharp as a knife, which render it eaſy to cut the roots of *flag*, *ſegg*, and other fen weeds; one man with ſuch a ſpade will do as much work in a fenny ſoil in one day, as two men would do with a common *one*, and do the work much neater and better. There is another ſort of *Spade* or *Spiter* uſed in *turbaries* for the cutting of *peat:* this is about ſeven inches wide from top to bottom, and about ten inches long, with a fin at one ſide like a *breaſt-plough*, but deeper; ſo that a compleat *ſpit* may be taken out at one *motion* in form of a *brick*. There is alſo another ſort of *Spade*, or rather *knife*, uſed in cutting of *hay-reeks*, &c. There is yet another ſort of *Spade* called a *Turfing Spade*, which is made very thin and ſharp, with a ſocket to put the ſtale or handle in, like a hedging-bill, the bit rather ſhort, and not broad: this is uſed to cut up turf, after the edges of it are cut by a proper inſtrument. All other ſorts of cutting, paring, digging, *&c.* are performed with the common *Spade*, which being ſo well known, needs no deſcription.

STADDLES,

This ſignifies ſtone columns, pedeſtals, *&c.* on which is laid timber, and on that reeks and ſtacks of corn, or granaries are ſet. And *Staddle*, *Sampler*, *Standard*, and *Standil*, and their *plurals*, ſignify one or more young tree or trees, reſerved or left ſtanding at the felling of *woods*, for the growth of *timber*.

STEWARD.

STEWARD.

THERE are ſeveral different *Officers* called by this name, with different appellations and names of their offices added to it; but I ſhall here confine myſelf only to that *Officer* or *Perſon* who officiates for a NOBLEMAN or GENTLEMAN, or any BODY CORPORATE; that lets, ſets, manages or any ways diſpoſes of *his* or *their eſtate* or *eſtates*, and all other *matters* and *concerns* committed to his truſt, care and charge, of what kind and denomination whatſoever they be of, to the *moſt*, *beſt*, and *greateſt advantage* and *intereſt* of thoſe that employ and intruſt him.

There are ſo many different ſorts of buſineſs that fall within the inſpection and care of a Steward, that (I may ſafely ſay) no other perſon, let his employment and way of life be what elſe it will, has a larger ſhare, moſt of which I have endeavoured to explain in this *Treatiſe*; and under this head, I beg leave more particularly to addreſs myſelf to the *Steward*, and give him the beſt inſtructions and directions which my ſmall capacity will afford; not only that he may act with

with a view to the *intereſt* and *advantage* of his *LORD*, which is very highly to be conſidered (*and that in the firſt place*) but alſo to the *intereſt* of himſelf; and which alſo, I beg leave here to call his *character*, *reputation* and *ſafety* only.

And for the better and more eaſy underſtanding of each ſeparate head, I ſhall deliver the whole, divided into the ſeveral following ſections.

SECTION I.

A STEWARD ſhould not undertake more buſineſs than he can faithfully diſcharge, and honeſtly and duly execute to the advantage and intereſt of the *Lord*, and that of his *tenants*; for the buſineſs or employment of a Steward is not of that nature as to be done by the by; for it is the leaſt part of his trouble to collect the rents, although too many modern Stewards make that the only or greateſt part of their trouble and buſineſs; which may perhaps engage them about a week in a year; and if this was to be the only employment of a Steward, he that can tell twenty, and can ſcrawl out a receipt, is as compleat and as well qualified a Steward as any in the kingdom; but the buſineſs and trouble of collecting the rents, is the moſt minute part of it, as taking up the leaſt part of his time, as I ſhall ſhew further on.

SECT.

SECT. II.

A Steward on the firſt entering his office, ſhould very carefully look over and examine all books, writings and court-rolls, terriers, *&c.* delivered to him, and maturely conſider whether there are all neceſſary inſtruments belonging to his LORD's eſtate or eſtates, *&c.* committed to his *truſt* and *care*, and if any ſhould be wanting, he is to make the beſt enquiry he can after them. If not to be found, he ſhould not make any great ſtir, ſo that it may reach the ears of the pariſhioners; but ſhould ingratiate himſelf into the favour of two or three of the moſt ancient and rational pariſhioners, and make a ſoft and gentle enquiry, aſking them to drink a pot of ale firſt ſingly, and if their tales agree upon penning them down, he need ſay no more; if not, he ſhould invite them to come at a certain time all together, and if they have any peek among themſelves, he may be ſure to come at the bottom of it; but it will be neceſſary, to let ſome words fall to give a hint that he is not in the dark himſelf, for if he is, he may remain ſo; for if the freeholders, *&c.* cannot agree among themſelves, yet they will all agree in this, for ſuch people applaud it for a piece of cunning and wit to cheat the *Lord* of the manor, and the *Parſon*. If he find he cannot come at the exact truth, at the next *court* day, or other *time* when the thing comes in queſtion, he ſhould take care to be enough on the *Lord*'s ſide, and then there will be plenty or numbers of informers

mers to tell him where he err, but if they gain but a *farthing* by his ignorance, they will ſneer at him behind his back.

I cannot better cloſe this *ſection*, than here to adviſe the Steward to be very particular in making, and keeping an exact terrier of all open-field-lands, and giving each tenant another of his particular farm; and where the bounds and abutments of any ſingle acre or other parcel of land, are dubious, to have them ſet out with *land-marks*, by a jury called and impannelled at the *Court-baron* for that purpoſe. *Vide Terrier.*

This not only puts an end to diſputes and quarrels, but prevents law-ſuits alſo. And it is likewiſe neceſſary, that the Steward ſhould every year at the accuſtomed time, with the aſſiſtance of the *Rector* or *Vicar*, go round the manor in *proceſſion* or *perambulation* in *Rogation* week, taking with him old and young, and to be very careful and exact in taking in all and every particular waſte, common and free-board, belonging to, and within, and accuſtomed and accounted to be a part or parcel, member or appurtenance of the ſaid manor, and at all and every particular place and places, play or cauſed to be played, ſome particular ſort of trick with a boy, to cauſe him and the company the better to remember it for time to come: by theſe proceedings, the bounds and precincts of a pariſh are kept entire, and the particular lands of the *Lord* free from all encroachments, to the

the no ſmall peace, quiet and ſatisfaction of the *Lord* and *his* faithful Steward.

SECT. III.

On a Steward entering on his office, he ſhould carefully look over, and ſtrictly examine the condition of his *Lord*'s woods, and ſee whether there has been a competent and ſufficient number of of *ſtandils* or *ſamplers* left upon an acre, *&c.* on cutting in times paſt; if not, there ſhould be left more the next time of cutting, than there otherwiſe would or need to be. In this caſe, the Steward is to acquaint his *Lord* of it, and that he is not to expect ſo great a return ſuch and ſuch years, as he otherwiſe might have had: and by examining the ſtools or ſtumps of the ſpires cut down, may gueſs what management they have been under for twenty years paſt.

On cutting underwoods, according to the ſtatutes 35 Hen. VIII. chap. 17. and 3 Eliz. chap. 25. twelve *ſtandils* or *ſamplers* are to be left ſtanding on every acre. He ſhould therefore order them to be left at proper diſtances, and when and where he ſees the woodward err, he ſhould acquaint him of it, and friendly admoniſh him, that he be not guilty of the like for the future. *Vide Woodward.*

And here I beg leave to admoniſh the Steward, that he orders the woodward to look and keep a narrow ſearch after all ſuch perſons that go about

his *Lord*'s woods to cut up hand-ſticks, faggot-bands, *&c.* and that he inform him of it, that they may be proſecuted as the law directs.

SECT. IV.

No *one* ſhould undertake the office of a Steward unleſs he underſtands and is pretty well qualified in arithmetic, book-keeping, architecture, hydraulicks, mathematicks, and mechanicks, *&c.* ſo as to be able on occaſion, to reaſon with a workman on any common buſineſs wherein he may have occaſion to employ *one*. Of which I ſhall give an inſtance. There was a miller, tenant to a certain gentleman, of whom I have the honour to have ſome acquaintance: this gentleman had an overſhot water-mill and a wind-mill, at which a mill-wright was doing ſome repairs, at which time he told the miller, that when the repairs were done, the wind-mill would not laſt long. I would adviſe you, ſays he, when the mill wants another repair, to prevail upon your *landlord* to take it down and erect a bay of building at ſuch a place (*which was about a hundred and fifty yards below the water-mill*) and there put up another water-mill, the ſtones and other materials from the wind-mill will compleat the other, and may be made with an eight feet water-wheel. The miller communicates this *noble* deſign to me, and deſires me to look at the ſituation of the new projected mill. Only by an ocular ſurvey, I found that the ſituation would carry no more than an eight,

eight, or nine feet diameter water-wheel at moſt, otherwiſe there would not be a proper draught to take and carry off the water from the old mill above. I acquainted the miller, that the mill-wright was right in an eight feet water-wheel, for the reaſons before-mentioned; but then, ſays I, who is to find water to move this eight feet wheel; the wheel at the mill appears to be more; he replied, that is fifteen feet; upon which, I made a ſhort calcus, and found, that it would require three times the weight of water to move the new projected mill, as it would to turn the old one; but that it might receive ſome help by a friction wheel *(or two of theſe)* to be laid in the *gudgeons* of the water-wheel; acquainting the miller with this, at firſt it ſurprized him, 'till I convinced him by a *hypomoclion*, (or *fulcrum*) and *leaver*. On his acquainting the mill-wright with what I ſaid; replies he, I never thought of that; I think it muſt take more water; but could not tell what quantity. I mention this, to ſhew how neceſſary it is for a Steward to be a little acquainted with mathematical demonſtration; for too many mechanicks know nothing of it, but do their work by rote like a mill-horſe.

SECT. V.

A Steward ſhould do all things without partiality in regard to all *men*, and more eſpecially among the poor labouring ſort of people employed in and

upon his *Lord*'s eſtate: I mean, in letting that work that is paid for by the *Lord*, whether it be cutting wood, hedging, ditching, trenching, draining, or any other labour, where there is more money to be earned than by other common labour, or by the day; but he ſhould partly diſpoſe of it according to the labourers neceſſity; not letting one do all that work which brings in the moſt money, and another labourer or labourers, whoſe exigencies require the ſame or more, be no partaker or partakers with him, when he or they are as capable of doing the work as the other. This I beg leave to call partiality, becauſe employing a perſon where more than common wages is to be earned, is real charity, and we are forbid partiality in this particular. I cannot better than in this place give a hint of what I have obſerved practiſed in a manor I have had ſome knowledge of. A certain labourer was ſuffered by the Steward *(or his under Agent)* to be an undertaker in the beforementioned way; the *Lord*, keeping the mounds and fences in hand: this under Agent lets them to another labourer by the pole or perch to cut, plaſh, ditch, and fence, and he employs others under him at twelve-pence a day (*which is the common price in that part of the country, where the labourer has not a faggot at night to carry home for his own uſe, if a faggot, ten-pence.*) The labourer or labourers hired by this *undertaker*, perhaps earn him ſixteen or eighteen pence a day each: and beſides, this undertaker makes ſome other additional perquiſites;

quiſites; whether all to himſelf, or whether there may be made a diviſion, I am not able to determine; but the under-labourers are not the better for them, which are, that he gets all the dead wood, ſtumps, chips, and ſuch like made in cutting up the old hedge, and putting down the new fence; and it has been obſerved that he makes the fence hedge on the ditch ſide before he ſcours it, ſo never pares that ſide of the ditch under that hedge, which is not eaſily perceived, becauſe the hedge hides it, and as the ditching is three halfpence the pole or perch, he does but a pennyworth of work for it. He alſo makes another conſcientious perquiſite, which is that of faggot-bands at ſix-pence a hundred, which he cuts out of hazle-ſtems, *&c.* on the Lord's lands, or boldly takes them out of under-wood bought for fencing of young quick mounds, ſo that the Lord pays for his own wood. If theſe perquiſites had been honeſtly and fairly divided among the labourers, they would have been a conſiderable addition to their daily wages, and a better ſupport to their indigent families, at a time when proviſions were ſcarce and very dear, and when theſe poor under-labourers worked from day to day with a piece of barley bread and water; and this undertaker, as commonly reported, has ſpent ſome ſhillings a week in ale to the no ſmall mortification of thoſe poor fellows that earned it for him, and the more ſo, as there were no ſigns of redreſs. I beg leave to mention one thing more of this undertaker, which is, his

aſſuming the power of a Steward, for, coming one day to one of his under-labourers that was cutting a hedge, where grew a number of young aſh-trees, ſays he, theſe trees ſtand too thick, I think to cut down every other tree, but by the perſuaſions of the man, they were reſpited for his further pleaſure.

I mention this, to prevent an unwary Steward from being impoſed on by a more ſly, and deſigning fellow, who will try to delude him with ſoft words and fair plauſible ſpeeches and pretences, and at the ſame time be ruining his character, and picking his *Lord*'s pocket.

SECT. VI.

It is common in a great many pariſhes and places, for a man that has ſaved himſelf ſome money by ſervice, *&c.* on marriage, to petition the *Lord* for leave to erect a tenement on the waſte, thinking it much better than to pay an annual rack-rent for a houſe (*as it certainly is*) but this ought to be maturely conſidered before ſuch favour is granted; for in caſe there are houſes in hand, it is by no means to be allowed of; but when or where there are not, it may (and where and when the man has a lawful ſettlement) but then and in this caſe, the Steward is to, or ſhould appoint the moſt convenient place or ſpot of ground: a place that will not interrupt or obſtruct a highway, and at a conſiderable diſtance from the manſion-houſe, and from the *Lord*'s woods, and that it do not obſtruct any view, and after all, to mark out the ground,

ground, and ſet a ſmall *chief-rent* upon it, and take the dimenſions in perches on all ſides *(if ſquare or oblong, on two only)* and aſcertain the ſame and the *chief-rent* in the land entry book, or the dimenſions may be put in a terrier of the eſtate: and to take care that ſuch tenant performs ſuit and ſervice at the *Lord*'s court for the ſame: and in all and ſuch like caſes, on admitting a new tenant, in caſe of mortality, *&c.* to take a ſmall fine by way of acknowledgment, and alſo make a reſerve of all timber *(planted for ſhelter)* to the *Lord*'s uſe. *All to be under covenants.*

SECT. VII.

A Steward ſhould uſe his utmoſt ſkill and induſtry for the diſcovering of *coal, tin, lead, copper,* or *iron* mines, within his *Lord*'s manors; theſe commonly turn to a greater account than the beſt improvements above ground, although theſe may be very great too. Therefore the careful and induſtrious Steward ſhould give a timely and faithful account to his *Lord* of (or even the probabilities of) the diſcovery of ſuch mines, that trials may be made by boring, that no great ſums may be expended at venture. It is alſo neceſſary that the borers be narrowly watched by ſome faithful and ſkilful perſon, that they perform their utmoſt, and and prevent if poſſible, the prevalence of a bribe or bribes from the coal-owners, *&c.* and others whoſe intereſt it may be to ſtifle ſuch enquiries and experiments: and who would be glad to uſe ſuch indirect and

and unlawful arts and practices, as would make abortive all ſuch endeavours which tend to a public as well as a private good. The Steward's diligence ſhould alſo extend to the diſcovery of all *quarries* that happen to lie within his *Lord*'s manor; for if they prove to be good free-ſtone, and eſpecially if near the ſea-coaſt, or a navigable river, ſuch *quarry* proves a conſiderable advantage to his *Lord*'s eſtate. There is alſo another foſſil worthy the Steward's enquiry and ſearch, which is oker, and lies under a white clay, and is found under no other kind of ſoil; but I would not be underſtood that it is to be found under every white clay. *Vide Oker.*

It ſhould alſo be the care of the Steward where there is a turbary, or peat to be dug upon his *Lord*'s eſtate, to promote the burning of it amongſt the tenants, *&c.* (eſpecially in a country where other fewel is ſcarce) not altogether for what the peat may be ſold for, but for the benefit of the aſhes for manuring of land. *Vide Turbary.*

SECT. VIII.

A Steward ſhould in all diſputes, where the privileges and rights of his *Lord* are concerned, thoroughly canvas, examine, and enquire into them, and then exert himſelf that none of theſe be loſt, but uſe his beſt endeavours to recover thoſe that have been loſt; as for inſtance, to one manor may appertain ſome particular right, and to another manor ſome other

pecu-

peculiar privilege, although ſuch may be but of little ſervice, or turn to little account, yet by no means ſhould they be ſunk and not contended for; ſuch rights and privileges are ſo many *pearls* and *flowers* added to the luſtre of the *Lord*'s *coronet*. It is obſervable, that in ſome places, where the *Lord* of the manor does not own the whole land or ſoil, he cannot compel the pariſhioners, to do ſuit to his mills, as in other places where he has only the manor, he may, and not only of *corn*, but of *malt* alſo, and likewiſe to bake their bread at his bake-houſe or oven. It is an undoubted truth that a great many *Lords of manors* have theſe privileges, but for want of exerciſing, or exerting ſuch right (as perhaps being trifling) have in a manner loſt or ſunk it; but where the *Lord* has corn-mills, it would be adviſeable for the *Lord* to keep them in hand (*which was done by all Lords of manors formerly*) which would in a great meaſure bridle the rapacious jaws of that devouring crocodile and craving harpy, the miller.

I ſhall mention one inſtance of privilege revived at Daventry, a corporation town in Northamptonſhire, which gives the title of Baron to the Earl of Winchelſea as Earl of Nottingham, who is alſo Lord of the ſaid manor, and has the right of obliging all the inhabitants within the manor to bake their bread at his bake-houſe, and alſo to grind their malt at his mill, *&c.* but by a long diſuſe this right was entirely forgot by the inhabitants;

tants; ſo that upon the Lord's reviving the cuſtom, the inhabitants thought proper to contend it with him at law, and pleaded exemption; but to their mortification were caſt with coſt of ſuit. Thoſe bakers that did not chuſe to bake at the Lord's oven, on gaining his conſent, compounded with him for baking it at home. And as to malt, it is ground at the Lord's mill, who takes a toll of it. There is another manor in this county I know, where the bake-houſe is yet ſtanding, and is ſituated within and upon a certain piece of ground, called the Hall-cloſe, and the place where the oven was or is, is quite viſible: and there is ſtill a certain *green* in the *town*, called Malt-mill-green: and the ruins of the malt-mill-houſe was viſible within the memory of man, ſo that it would be practicable to revive the ancient cuſtom; but the manor being in three different hands, and in a country village, perhaps it may be thought that the advantage and profits would be but trifling; but by ſome *Noblemen* or *Gentlemen*, *&c.* it would be eſteemed a valuable thing for the firſt mentioned reaſons.——*The inſerting theſe particular inſtances, may ſuffice for all others.*

SECT. IX.

A Steward ſhould be well acquainted with country affairs, and thoroughly underſtand the nature and quality of land, that as occaſion requires, he may be able to inſtruct ſuch tenants in improving

improving their farms to the greateſt advantage of the Lord, as well as themſelves: he ſhould underſtand what and which manure is the moſt fit and proper for every different ſort of land: he ſhould alſo underſtand the quality of lime, and the different kinds and ſorts of marle, Devonſhiring, draining, *&c.* and likewiſe how to make the moſt of thoſe lands that cannot be thoroughly drained, and yet to improve ſuch lands ſo as to make them turn to good account by planting them with aquaticks; but yet, every ſort of aquatic plant does not agree with every ſort of boggy land.

A Steward ſhould likewiſe on his firſt engaging himſelf in his employment, conſult the quantity as well as quality of every parcel of each tenant's farm, that he may be able to reaſon with them when they act contrary to the rules of good huſbandry, by ploughing more than they can get manure for *(where lime and marle are wanting)* as is too often the caſe; for it is a maxim in huſbandry, that a farmer ſhould keep but a little more than a third part of his land in tillage in any one year, unleſs for juſt reaſons, as when land is foul and over-run with moſs, *&c.* In this and the like caſe and circumſtances, it is a material part of good huſbandry, to plough it up for three years only, or ſo long as to kill the moſs, *&c.* but as for ploughing ſuch land that is to be alternately continued in tillage, let the farmer take no more than two crops at a time before the ſame be laid down again with proper graſs-ſeeds (*unleſs ſome proper piece or pieces laid*

laid down with Saint Foyn, &c.) and the moſt proper ſeeds for land that is ſown to be broke up again, are clover, rey-graſs, and trefoil.

The beſt method to be taken with light incloſed lands, is to plough it two years, and then to lay three with theſe graſſes mixt in a due proportion, and to mow the firſt year after ſuch ſowing, becauſe the graſs-roots are not well faſtened, and got a proper ſtrength: the two following years eat it, when it will keep a ſtock almoſt as much as can ſtand upon it, which will manure it, ſo as to make it fit at the end of three years to bear as good a crop as land of the firſt quality, more eſpecially if it be dunged with a proper ſoil as ſoon as it is mown, ſo that it will need no other helps or ſuperinductions till the ſame time comes again on the next ploughing. Land ſo uſed, will ſtand in no need of having ſheep penned or folded upon it, which is commonly done; and yet by this method, graſs-mutton may be fed as well as upon land of twenty ſhillings an acre; but it is to be obſerved that according to theſe my preſcriptions, the farmer can raiſe but little wheat; for oats will be moſt proper for the firſt year, and barley the ſecond. I know a farmer by theſe practices, has raiſed a conſiderable fortune in a few years, upon a rack-rent, and without running his fingers in the dirt.

SECT.

SECT. X.

A Steward ſhould make the moſt ſtrict enquiry after all *poachers* that deſtroy the game within his *Lord*'s manors, and on diſcovery lay regular complaints before a juſtice of the peace, that they may receive due puniſhment; and alſo if there be any found not duly qualified, that keep grey-hounds, ſetting-dogs, pointers, guns, and other engines deſtructive to the game, he ſhould inform againſt them that their dogs, guns, nets, *&c.* may be taken from them as the law directs: the purſuit of theſe ſort of diverſions in the lower ſort of people is nothing more than the effect of idleneſs, which makes them neglect their lawful *callings* or proper buſineſs, and generally ends in poverty, to ſay nothing worſe; but for particular reaſons the game is to be preſerved by the Steward and game-keeper, for their *Lord*'s diverſion, as well as his table. But I cannot forbear giving a private ſentiment of my own, which is, that it would be a great indulgence to an eminent and credible tenant, now and then to take him into the field for a day's ſport; and the gift of a hare, *&c.* at a certain time, would greatly gain the *Lord*, not only the eſteem of his tenant or tenants at home, but a popular name for affability and good-nature, as far as the farmer goes to buy or ſell his cattle, and perhaps to ſome of the moſt diſtant *places* in the kingdom.

In Summer time it is common for the mowers to cut out, and others to find leverets, young partridges,

partridges, eggs, *&c.* and diſpoſe of them at their pleaſure. In this caſe it is proper for the Steward (*or game-keeper*) to fix up in the moſt eminent and public place or places in the pariſh, an advertiſement, which may be ſomething like the following.

NOTICE is hereby given, that any perſon accidentally finding, or mowing out leverets, young partridges, pheaſants, or their eggs, or any other game, or the eggs of ſuch game, within the manor of are deſired to bring them to Steward (*or game-keeper*) to Lord of the ſaid manor, who will reward them for their trouble; but provided the perſon or perſons finding the ſame, ſhall carry or deliver them to any unqualified perſon within the ſaid manor, or qualified perſon without it, or ſhall themſelves endeavour to conceal the ſame: any one or more impeaching ſuch perſon or perſons, and on his or their being convicted thereof, ſhall receive of me over and above the penalty and forfeiture ſuch offenders are ſubject to by act of parliament.

In witneſs whereof, I have hereunto ſet my hand this day of 1759.

P.

N. B. *Notice given of ſearchers for the above-mentioned game, ſhall be intitled to the ſame reward.*

It has been a practice, and is to be feared is ſtill continued, that too many game-keepers, not only connive at *freeholders*, *tradeſmen*, and unqualified perſons

ſons poaching in their *Lord*'s manors for a *half-crown* at *Chriſtmas*, and a *jug of ale* when they call upon them; but have alſo the knack of pleaſuring market-towns, *&c.* tradeſmen with game for lucre, by which unjuſtifiable practice, may make near as much *per ann.* as their wages. Therefore it is, and ſhould always be the care and duty of a Steward, to keep a ſtrict eye over the game-keeper.

SECT. XI.

It is the duty of a Steward, and he alſo ſhould make it his buſineſs, to keep a ſtrict eye over the park-keeper, to ſee that he performs his duty, and faithfully diſcharges the truſt repoſed in him by his *Lord*, and that the walls or pales be kept in good order and condition, to prevent the deer breaking out and ſtraying; for although a great many Noblemen and Gentlemen are fond of out-lying deer, and are apt to be too remiſs in this particular, yet they do not conſider the great damage they do to their tenants, who with great care, coſts and pains, have raiſed perhaps a promiſing crop, and after all ſuffer great waſte and ſpoil by the *Lord*'s deer for (*perhaps*) a *ſhoulder* of veniſon, with giving half a crown to the keeper: beſides, out-lying deer do infinite damages to the ſpring of woods kept in hand, *&c.* The Steward ſhould alſo ſee that the keeper kills not too many of the female fawns when the does firſt drop them; for ſometimes by

taking a fawn too ſoon from the doe it may coſt her her life, more eſpecially ſo, where the park is pretty good land, by too ſoon ſtopping the lacteal veſſels: for *feral* beaſts cannot be taken, and have their dugs drawn, as the *domeſtic* ones: beſides, as many or more female fawns are to be preſerved, than the number of does intended to be killed the next ſeaſon; becauſe there may be caſualty; neither are they to be ſuffered to ſuck too long upon full aged does; (ſo that it may be proper to kill the fawns of full aged does at a proper age, that the doe get fat the next ſeaſon,) which will greatly retard their fleſh, that they will not have time to gather fat againſt the next ſeaſon: but there be too many keepers inclinable to let the fawns ſuck too long for the lucre of gain, both in the fawns and their ſkins.

It is alſo proper, and it is alſo the duty of the Steward to ſee that the park be drove once a year, and that he perſonally attend it, and take an exact account of the number of male and female deer, as alſo of HAVIORS; entering them down in a ſmall book kept for that purpoſe, drawn out with proper columns, wherein are to be expreſſed ſeparately males and females, with their reſpective ages, from one to five years old, together with the number of bucks and does killed each year: in which it would alſo be proper to inſert caſualties, which in ſome meaſure (*although not altogether*) is to be taken from the keeper's account. The doing of this will greatly recommend the Steward's

Steward's diligence, and undoubtedly give great ſatisfaction to his *Lord*, whereby he ſees whether, and how much his park every year increaſes or decreaſes, and every way the ſtate and condition of his park, all which will be a continual cheque upon the keeper or keepers, that it will be difficult for them to abuſe their truſt; and the doing of this is rather an amuſement or diverſion to a Steward, than a fatigue or trouble.

N. B. *If order, accuracy and exactneſs are intended to correſpond, there ſhould be two convenient pieces of land of about eight or ten acres each, more or leſs, taken out of the park, which may occaſionally be ſtopt up after a ſmall herd is drove in,* viz. *one to drive this herd into to tell them, and the other, to ſlip them into while the next herd is told, which may alſo be driven into the former; and ſo proceed till the whole are counted, and told over.*

A book for keeping an account of the stock of a park, may be kept after the following method.

| A.D. | Years when the Park was drove. | | |

SECT. XII.

It is alſo neceſſary, that the Steward keep a ſtrict eye over the woodward or wood-keeper, for otherwiſe that valuable part of an eſtate lies wholly and entirely at the mercy of a perſon whoſe care and ſtudy is to make the moſt perquiſites and private advantages, by taking in *(ſwine and)* young cattle as joiſtments, which do incredible damage, and more eſpecially upon the young ſprings, which they are very fond of.

There are too many woodmen that make no ſcruple of pillaging the underwoods for any ſort of uſeful ſtuff they produce, and another perſon will buy; and ſome have made no ſcruple of cutting up ſtandils, ſamplers, ſpires, *&c.* when opportunity offered, as has been practiſed in woods, to the no little detriment and damage of the worthy body the proprietors. And as WOODS are ſo conſiderable and valuable a part of ſome eſtates, ſo much the more it ſhould concern the Steward to be watchful and diligent to ſee that the wood-keeper perform every part of his duty.

And firſt, that he keeps and preſerves the fences, whether pales, hedges, *&c.* in ſuch manner as to keep out all ſorts of cattle, which might otherwiſe get in and ſpoil them; for when a young ſpring is cropt, broke and trodden down, it never recovers itſelf; therefore it is moſt adviſeable, to cut it up by the bottom the next ſeaſon;

but a conſtant and due care in this article, will be a great means to accelerate their growth, and by occaſional laying them down, promote their increaſe; but bad management, indolence and neglect, (*as experience can teſtify*) retards the growth of all woods, and poſtpones the repeated ſale to a later date, to the great loſs and damage of the *owner*.

And ſecondly, the Steward ſhould ſee that the keeper clears off all ſorts of trumpery that grow and cleave to the timber-trees, ſtandils, ſpires, *&c.* more eſpecially *ivy*, which like a horſe-leech, ſucks, and never has enough, till that which broods it, is exanimated by its inſatiable thirſt.

And if, thirdly, by the force of winds, or weight of heavy ſnows, large branches happen to be broken off, the Steward ſhould order the keeper not to cut them cloſe to the bole of the tree, but rather at three or four inches from it, ſloping them, the better to caſt off the wet, which otherwiſe would be apt to get into the body of the tree, to its final deſtruction. Great care is to be taken upon the cutting of underwoods; and the Steward ſhould not only acquaint the keeper, but ſhould alſo inſpect the workmen, that they do not haggle them at the place of amputation; but cut them ſloping with a ſharp tool, and the ſtroke to be made upwards, and quite clean and ſmooth, the better to caſt off the wet, and preſerve the ſtems from rotting, and after all, not to cut them too

near

near the ſurface; but rather four or five inches above it.

It is cuſtomary in ſome places not to cut underwood till it has ſtood thirty or forty years; but the beſt way is, to cut it at ſuch a ſize as it is moſt wanted for, in that part of the country where it grows. *(Vide all places in this Treatiſe concerning woods.*

N. B. *Underwood of more than twenty years growth, pays no tythe, unleſs by preſcription.*

SECT. XIII.

I ſhall now enter on the moſt difficult part of the office and policy of a Steward, *viz.* whether it is or is not the duty of a Steward, to lay ſmall farms into great ones, and likewiſe give ſome directions in the letting and diſpoſing of farms to the greateſt advantage of the *Lord*, and the public community.

It is, and has been the practice of Noblemen, Gentlemen, *&c.* and their ſtewards or agents, in too many parts and places of the kingdom, to take and make uſe of all and every opportunity as it offers, to convert and lay two, three or four ſmall farms together to make a large one, but for what reaſons I am not able to determine, unleſs the Steward do it out of lazineſs, to get his buſineſs into few hands, and a premium for admittance. It certainly cannot be for an advance of rent, for the renters of ſmall farms do the

greateſt part of the labour themſelves and their families; but then on the other hand it may be urged, that theſe ſort of people are leaſt acquainted with the new manner and methods of improvement, as being more illiterate, and having not ſeen ſo much of the *world*, compared with thoſe in a higher, and more popular way of life; but then it is the duty of the Steward, and he ſhould make it his care too, to inſtruct them, by reaſoning with them in their own language, and according to their own underſtandings; for theſe ſort of people (*as I ſaid before*) not only do and perform the greateſt part of the labour themſelves; but live in a more low and plainer manner, than thoſe more polite and over-grown farmers can, or would chuſe to do, ſo that by a proper inſtruction and precept, theſe not only can, but will bear and pay an advance and improved rent, as well, or perhaps better, than the more polite, and over-graſping *ones* will chuſe to bear; beſides, it is unjuſt in the higheſt degree, to turn families into the *world*, to be no better than ſo many ſlaves to theſe potent farmers, or rather *Egyptian taſk-maſters*, which is as great an hardſhip on theſe ſort of people, as for a Nobleman or Gentleman of———thouſand pounds *per annum*, reduced; to live upon ſo many hundreds. But I would not be wrong underſtood; that when a farm fairly falls by death, and the tenant has no iſſue left capable of occupying it, or that they are otherwiſe better provided for: in this caſe, where

where there is a good tenant whoſe farm lies contiguous, and is deſirous of it, and will give as much for it as it would or could otherwiſe be let for: I ſay, in this caſe, it may be added to another; but even then with this proviſo, that neither it, nor any part of it be let to an undertenant; but if there is a promiſing perſon within the manor that is deſirous of it, that will give as much rent, and has not a farm to begin the world with, he ought to have the preference.

Near a market, or other populous trading town, it is very proper and advantageous to the *Lord*, to let his lands out in ſmall parcels to tradeſmen, that want ſuch ſmall parcels for the keeping of a horſe or two, and others for keeping of cows to ſell the milk; ſuch people can afford, and will give almoſt twice the value to what a common farmer can, or will do. And Mr. Laurence gives a very remarkable inſtance parallel to this: ſays he, "I have known very conſiderable improve-
"ments made on Noblemen (*and Gentlemens*)
"eſtates ſituated near the ſea, by granting leaſes
"of the ground for building houſes upon the
"waſte, at an eaſy rate, for the firſt term of ten
"or twelve years, by way of encouragement;
"and afterwards they have readily ſubmitted to
"a conſiderable advance of rent for a ſecond
"term; by which means the place by degrees
"ſoon became very populous, ready for a charter
"to be made a trading market-town, and at the

"ſame

" ſame time able to fix advanced rents (even
" double to their former value) on all the neigh-
" bouring eſtates. This noble example of good
" huſbandry, having been compleated by that
" great œconomiſt Sir Walter Caverly, near Leeds
" in Yorkſhire, ſhould animate and encourage
" others to the like improvements, who, by lay-
" ing out conſiderable ſums of money in build-
" ing *fulling-mills* upon the river *Air*, has tempted
" the cloth-makers to come and ſettle there with
" their families; inſomuch that his eſtate and
" lands round about quickly advanced, and
" doubled the old rent." (*Vide letting to farm.*)

SECT. XIV.

It is in ſome meaſure the duty of a Steward to keep a ſtrict eye over the mole-catcher, whether he catches them by the *dozen*, or by the year. In Northamptonſhire, it is common to give two-pence *per* mole, where the mole-catcher is paid by tale, which is not very common; moſt farmers let their farms by the year, then on the mole-catcher's firſt entrance, he does his beſt to extirpate the whole as ſoon as poſſible, that for the future, he may earn his annuity with eaſe; whereas on the contrary, he would rather leave ſome to propagate, that he may have ſome to catch another day. But ſome lazy and thoughtleſs farmers, are apt to think moles do very little damage to the ſoil; for that their caſts being

ſpread

ſpread upon the land greatly improves it; but on the contrary, the miſchief is very great where there is a large ſtock kept; for in a dry Summer, little graſs will grow where the ſoil is much burrowed and made hollow by theſe *purblind* pioneers.

It is alſo the care of the Steward; or at leaſt, it would be neceſſary for him to ſee that each and every tenant levels his meadow and paſture-ground as near as poſſible in the *Spring*; and to ſpread the mole-caſts and ant-hills, that the ſtroke of the ſcythe be not interrupted, that the graſs may be cut, as it were, even with the ſurface; it being a *maxim* in huſbandry, that one inch at the bottom is worth three at the top.

Although it is ſaid (*and in ſome meaſure is ſo*) that one inch at the bottom is worth three at the top; yet on land that is to be mowed the next following year alſo, if the graſs is pared up very cloſe to the turf, there will be found the next ſeaſon as much more wanting as was gained the former year, by cutting it up ſo very cloſe: this I had from an eminent farmer, and will undoubtedly hold good, when the ſame land is to be paſture the year following. (*My own reaſon for it is*) that the herbage by being pared cloſe to the turf, and Winter coming on, ſo chills and ſtarves the roots of the graſs, that they become ſterile, and are rendered unfit for vegetation. This propoſition will undoubtedly hold in open fields or incloſures, when the graſs is cut late; but when it is cut

cut about *Midſummer*, I think it can be no detriment, eſpecially if the land be dunged before the approach of Winter.

SECT. XV.

When the Steward has let a farm well, and at a competent advanced rent, as certainly moſt farms will bear or admit of, more eſpecially thoſe held at an old rent, or at what they were let at forty or fifty years ago; for it is certain, that as money fluctuates, conſequently land muſt riſe in value; for it is well known, and recent in every aged perſon's memory, that butter was ſold formerly at a groat a pound upon an average; but now * ſix-pence has been refuſed, and not only butter, but all other articles a farm produces, are very much enhanced in price, and labourers wages the ſame as formerly, or at the old accuſtomed prices: ſo that I look upon farming as things now ſtand, to be the beſt of all other employments in the kingdom, and that eſtates, annuities, *&c.* to be worſe than they were forty or fifty years ago, by a fifth part; ſo that by the joining and laying ſmall farms into greater, and keeping them at an old rent, the farmers will *vie* with their landlords; and their dependants, whether in trade, or their menial *ſlaves*, be treated in a manner very unbecoming.

A Steward in advancing or raiſing a farm, ſhould reaſon and talk to the farmer in his own

* In the upper part of Northamptonſhire.

way,

way, by telling him, he cannot expect to rent a farm, now a pound of butter is ſold for ſix-pence, and all other articles in proportion, as when the ſame were ſold for a third part leſs; and that moreover now by the new invented improvements of land, almoſt every acre of indifferent and poor land with a charge, inconſiderable to the improvement, is made equal to two or three. This way of reaſoning, will undoubtedly make a ſucceſsful impreſſion upon the tenants; for this being arguing with them in their own way, and fighting them with their own weapons, will undoubtedly have a greater effect upon them, than all the rhetoric the moſt able orator is maſter of: ſo that if a Steward would gain his point, he muſt not expect to do it in a haughty, bluſtering manner, which ſome agents take, who know nothing of the value and improvement of land, or by that abominable and unjuſt method of poundage, which muſt conſequently fall too heavy upon the ſhoulders of ſome, whilſt others hardly touch it with their little fingers.

If then Noblemen and Gentlemen will ſuffer themſelves to be led into this ſummary way of poundage, they may be the ruin of ſome families, and yet not prejudice other ſome, that have not been raiſed before. Therefore, before any ſuch thing as an advanced rent is mentioned to the ſeveral tenants, the Steward is to conſider the value of every parcel and piece of land ſeparately, and what uſe it may and can be beſt applied to, conſiſtently

ently with the farm in general, and what will be the charge and conſequence of improvement, and then mention all to the ſeveral tenants, arguing with them according to the before-mentioned way of reaſoning, or ſomething like it, as the caſe in hand may beſt require: by ſuch methods, and fair calculations, the tenant is treated in an eaſy familiar way, and a conqueſt is gained, by turning his own weapons upon him: but then, there may be ſome that will ſtand out contumacious, and will not be beat out of the track of their forefathers: In ſuch caſe, the ſteward or agent, is to have an ingenious over-racked tenant in his eye, ready to put in upon refuſal of any of the principal tenants, after a fair calculation of the value of their farms have been made appear to them. This method will undoubtedly and in general produce good effects, and will be a means of breaking all confederacies and combinations among them, when they agree one and all to make no advance of rent. Therefore the firſt tenant that refuſes to liſten to reaſon and civil treatment; the Steward ſhould get from under his hand, that he reſigns his farm, by drawing up ſomething like the following.

September the 12th, 1759. I do hereby voluntarily declare, that I ſhall leave the farm which I have rented of———at Lady-day next, and that I freely conſent, that the ſame may be let, and taken and rented, by any

any other perſon whatſoever, and that he may freely enter upon it, at the time laſt above-mentioned.

As witneſs my hand, the day and year firſt above-written,

Witneſſed,
B. C.
D. E.

A. Z.

Now, it commonly happens, that he makes ſome ſcruple of ſigning this his reſignation; and deſires two or three days to conſider of it, and to conſult Mr. ——— the high (*or chief*) conſtable, who is of a ſuperior judgment and underſtanding; and more eſpecially his *wife*, if he is under that ſort of government; and yet, this is highly neceſſary, where her welfare and intereſt are ſo nearly concerned. The conſequence of which, will be found to be, that at the time appointed, the tenant will come again, and drive a bargain. But if it ſhould happen that the tenant is unperſuadable, and ſigns the aforeſaid certificate, this will be of ſingular uſe in procuring a new tenant, for they make a ſort of conſcience of taking a farm over another's head, as they term it, although an abſolute refuſal has been given; ſo that for want of ſuch teſtimony, a new tenant would be hard to be got; but upon producing this paper properly atteſted, all difficulties vaniſh, and a new tenant is eaſily procured to anſwer all expectations: for, as I have had occaſion once before in this treatiſe to ſay, a farm

may

may be too dear, and a hard bargain to one man, and a very good and cheap one to another; ſo much difference there is in management.

This method has alſo another peculiar effect; for it puts a final ſtop to all further combinations and rebellions againſt the *Lord*, which are carried on in a ſtupid and clowniſh way, or rather in a heatheniſh manner; for in ſome places it is uſual with the tenants, (as Mr. Laurence obſerves) to aſſemble together round a *great ſtone*, upon which they are to SPIT, believing this practice (joined with a promiſe of what they will do and ſtand to) to be as ſacred and binding, as if they had taken a corporal oath; but in other parts of the kingdom, they bind themſelves in a different, although in a manner no leſs *ſolemn* than the former, *viz.* The tenants aſſemble together at one of their principal's houſes, and after a great many promiſes paſt amongſt them, what every one will ſtand to and abide by, one of the *chiefs* propoſe, that they ſhall all put finger in HAT: which is, that he takes his hat off, and the others ſtanding round him, every one puts the fore-finger of his right-hand into it: the *chief* at the ſame time repeating the *affirmation*, which is looked upon to be no leſs *ſacred*, and as binding as the former.

SECT. XVI.

It is, and ought to be the ſtudy and endeavour of a ſteward, to promote the eaſe and comfortable ſubſiſtence of his *Lord*'s tenants and dependants;

dants; ſo in a particular manner, he ſhould endeavour to prevent all unneceſſary loads and incumbrances falling upon them; for by their inadvertently taking in and harbouring *vagrants* and *ſtrangers*, they bring new families inhabitants into the pariſh, with additional charges upon themſelves, and afterwards repent when it is too late.

Theſe inadvertencies raiſe the poor-rates and ſeſſes: of which I ſhall give an inſtance in an open field pariſh I very well know. A *yard-land* ſome years ago was let at twelve pounds *per ann.* and is now let but at ten, occaſioned by the increaſe of the poor's ſeſſes. Therefore in ſmall pariſhes, and more eſpecially, where the land is moſtly applied to *dairying* and *feeding*, and where there is no manufacture carried on, it is proper that the tenants be reſtrained by covenants, not to ſettle a *ſervant* in the pariſh, under the penalty and forfeiture of forty pounds. And indeed it is *juſtice* to the perſon, to prevent his ſettling in a place where his family cannot be ſupported any other way than by his own labour; and his children, when capable, can have no other employ, than to eat the bread their father can earn for them; nevertheleſs it is neceſſary to be always provided of ſo many inhabitants as are ſufficient to do all the labour the pariſh requires, and that ſuch be not brought in from other pariſhes to do it. If this was practiſed throughout the kingdom, the poor would be more regularly and equally diſperſed, and better provided for than at preſent; but where

a conſiderable manufacture is carried on, there is no great occaſion for the before-mentioned reſtraint, for the greater the number of inhabitants in places where a great trade is carried on, by ſo much more will the *Lord*'s eſtate be enhanced in value, and the poor always provided for beſides.

But then, manufactures are not carried on in ſmall country villages, ſo that by increaſing the pariſhioners, the pariſh rates are increaſed, and the tenants overburthened, and by their being overburthened, arrears of rent enſue, ſo that the *Lord* pays all at laſt; and what is yet worſe, his farms get a bad name, ſo that it may be difficult to procure tenants at any rate, to take them off his own hands.

Our laws have well guarded againſt the evil of harbouring vagrants and ſtrangers, but for want of due execution, through the indolence and inactivity of the principal inhabitants, they are ſuffered to ſettle in pariſhes, and conſequently ſubject ſuch places to the before-mentioned inconveniencies. Therefore, the Steward or agent ſhould take the utmoſt care, and be vigilant in putting the laws in execution; and have recourſe to juſtice in this and in all other caſes, where the property of his *Lord*, and that of his tenants and dependants are ſeparately, or mutually concerned.

The Steward ſhould alſo exert himſelf in this, that whenever there happens a quarrel or diſpute between one tenant and another about trifles, or indeed any other affair where property is concerned,

to

to act as a mediator between them, which will prevent law-ſuits, unneceſſary expences, and loſs of time: for which reaſon, I have inſerted ſome uſeful and plain copies for that very purpoſe, with ſome others, wherein the Steward may be, not only ſerviceable to his *Lord*'s tenants, but to the neighbourhood in general where he reſides, and that inſtead of a *bug-bear*, he may gain the good will of all, and be repreſented, and looked upon as a perſon, not only uſeful, but valuable in his generation.

SECT. XVII.

In thoſe parts of the kingdom, where ſlate, tile, and lime are to be had at a reaſonable price, the Steward ſhould oblige all his *Lord*'s tenants, to cover their houſes with ſlate, or tile, as a better ſecurity againſt accidents and misfortunes of fire; and which alſo prevents that great conſumption of ſtraw, thatched buildings always demand and call for. Thatch is a common covering in too many country villages, but it robs the land of ſuch a manure, and in ſuch quantities, that it is ſeverely felt, more eſpecially on ſuch farms where little elſe is to be procured beſides what the premiſes produce. The Steward ſhould make uſe of all the *rhetoric* and *logic* he is maſter of, to bring the tenants into this way of thinking, and demonſtrate to them, how much it is for their own good, as well as that of the public community. And the

Steward, on letting his *Lord*'s eſtates, ſhould covenant and agree with the tenants, that when any material thatched building ſtands in need of ſtripping, that they cover the ſame with ſlate, or tile (*that which is neareſt at hand*) having rough timber allowed and aſſigned them by the Steward.

The Steward alſo when he draws up proper covenants to oblige the tenants to keep up their farms in a due courſe of good huſbandry, muſt by no means leave out this material one, which I have inſerted in its proper place, *viz. not to commit waſte of any ſort, or not ſubject it to waſte*; as by erecting brick-kilns, digging of clay, other than for manuring the farm, nor to ſink or trench for oker, peate for ſale, coals, ſtone, *&c.* without entering into freſh covenants. Mr. Lawrence obſerves, that for want of ſuch reſtrictions, he has known ſuch practices as the erecting of brick-kilns, *&c.* carried on, and kept a ſecret from the *Lord*, and even for want of ſuch a covenant, he has known the free-hold tenants pare the turf off the beſt land, and carry off the rich mould for *eight* or *ten* inches deep, to improve their own land, laying the turf down again, and after ſuch or other great waſte committed, have thrown up the land into the *Lord*'s hand, to make the beſt of it.

SECT. XVIII.

A Steward ſhould have both diſcretion and judgment in letting his *Lord*'s farms, eſpecially, if he finds

finds there is good reaſon for an advance of rent, in which caſe I think there is yet one circumſtance remaining that may miſlead him, which is, that he ſhould never parcel out lands to *ſmall* freeholders where there are large commons without *ſtint*, notwithſtanding they would give twice the value (which ſometimes they will not ſcruple to offer) for in the end it will prove a very great prejudice to the *Lord*'s tenants in general; becauſe theſe freeholders only make uſe of thoſe lands ſo rented, to put their cattle upon at ſuch time as the commons are under water; or in Winter, when very cold, and the commons being open, the cattle are ready to ſtarve: ſo that if a freeholder has a houſe and homeſtead of a ſmall value, he may improve the ſame by taking of two or three ſmall parcels of land, to ten or fifteen pounds *per annum*: but then, if this is ſuffered, the commons will be ſtocked to that degree, that the *Lord*'s tenants, who occupy large farms, will not receive that proportion of advantage, which perhaps was a principal motive that induced them to take ſuch farms: ſo the Steward's getting an advanced rent, may in the end prove a great hinderance to the improvement of the eſtate depending upon the commons, in part or in the whole.

There is alſo another misfortune attending ſuch manors and places where there is a *ſtint* of common in the common-fields, which is, that the richer and more potent tenants, will be apt to overſtock, beyond the cuſtom of the manor, to the no

little damage of the lower and poorer tenants, who are not in a condition to buy ſuch a ſtock as they have common for. In this caſe, it is the duty and care of the Steward, to ſee that the richer tenants do not common beyond the *ſtint*, without paying the poorer ſort for ſuch commons, and for ſheep commons more particularly; that the richer tenant that ſtocks for the poorer, allow him his due ſhare of the folding or penning the ſheep according to the number of head he commons for him; for the loſs of the dung is a very material article to a poor man that wants it, and the want of a proper and ſufficient ſtock makes it the more needful and neceſſary. The Steward need not be at much trouble to find who overſtocks, for the tenants will readily impeach one another, ſo that it will be eaſy for him to take care that the whole be not overſtocked. Theſe abuſes uſed formerly to be very *ſtrictly* enquired into at the *Court-Baron*, or *Lord's Court*; but of late years they have been too much neglected, except in thoſe manors where the Steward is diligent, and will exert himſelf by preſenting the offenders; and it ought to be ſtill more his care when he finds the richer tenants have agreed not to *preſent* one another, and by ſome means or other to cruſh thoſe poorer tenants that dare offer to do it, or otherwiſe to moleſt them.

But in moſt of the manors and pariſhes that I know of, where there is a *ſtint* of common, it is uſual to let and take of one another. As to ſheep, it is cuſtomary to let and take them by the head, as ſuppoſe

ſuppoſe a perſon has common for four hundred ſheep, and puts two hundred only on the common; in this caſe he has two hundred commons to diſpoſe of, and it is in his own power to let theſe other two hundred to any perſon he chuſes, and that will take them; on the other hand, if a perſon has commons for two hundred ſheep, and is deſirous of commoning more, he is to take or hire the number of commons he wants of ſome other perſon or perſons who have ſuch to diſpoſe of; for if he turns more into the common than he has a right to do, upon intelligence given to the perſons appointed at a veſtry or otherwiſe, to detect ſuch fraudulent practices as over-commoning, *&c.* or who upon ſuſpicion will count his ſheep, *&c.* and what are over-commoned, will be impounded, and the offender laid under a cuſtomary pecuniary *mulct*, and alſo ſo often as the perſon is found to offend; which is a much quicker way of redreſs than waiting till the *Lord's Court* is held; but in this caſe, if the offender ſhould replevin his cattle, it is a hard matter to get the other farmers to bind themſelves to ſtand a trial at law; but it moſt commonly happens that theſe over-commoners rather chuſe to ſubmit to, and pay a ſmall *fine*, than to ſtand a trial at law, wherein they are ſure to be caſt; and beſides are ſubject to an amercement at the *Lord's Court* into the bargain.

SECT. XIX.

In this ſection I beg leave to inſert a clauſe which might have been more properly done when

I was ſpeaking to the Lord; but I hope it will not be thought improperly inſerted here, *viz.* that upon the vacancy of a rectory, vicarage, or ſchool, *&c. (ſuppoſing them to be in the gift of the Lord)* where there is no proviſion made for repairing the premiſes, that upon a preſentation to another incumbent, an agreement be ſtrictly made to oblige the new incumbent to plant a conſiderable number or quantity of *oaks*, *aſhs*, *elms*, *&c.* round the home cloſe, or other proper place, ſuch as may beſt agree with the ſoil, which will be ready when grown up to anſwer the expence of any new building, repairs, alteration, or improvement upon the premiſes, without affecting the deceaſed's widow, or family, or the new incumbent; for it may ſo happen, that ſuch repairs, *&c.* may coſt him a year's income, before he can make things ſuitable and agreeable to the value of the *living*; but when there is ſuch proviſion made, all theſe things vaniſh, and no incumbent coming in upon the growth of ſuch *timber* will cut it down, but for the intended good uſe, and purpoſe aforeſaid.

But whether it is ſimony in a *rector* or *vicar* to enter into ſuch contract for planting, or conditionally not to cut down, I leave to their own judgment, and to that of the canoniſts, *&c.* but it cannot be ſimony with regard to ſchools.

SECT. XX.

It is neceſſary *(as I ſaid in ſpeaking to the Lord)* that the Steward be always a ſurveyor of the high-

ways,

ways, in the pariſh where he reſides, and that he alſo keep a narrow and cloſe look over the ſurveyors in other pariſhes where he is concerned for, and exert himſelf in ſeeing that his *Lord*'s tenants and the freeholders perform their duty, and that the materials be diſpoſed of to the moſt and beſt advantage; and where he ſees them err, to give them his judgment and beſt advice, and acquaint them with the conſequence of bad roads, and the benefit and advantage of good ones; reaſoning with them in a mild, not in a hectoring manner, for whatever effect a haughty behaviour may have upon the tenants, yet the freeholders will rather chuſe to be led than drove, notwithſtanding they may be compelled to do the duty the act of parliament requires.

It is alſo neceſſary, that the Steward always attends the pariſh veſtry, and ſee that juſtice is done to the poor; that thoſe that are unable to work, by reaſon of age or accident, and thoſe overburthened with a numerous family may be relieved in a manner agreeable with their different neceſſities; and alſo to ſee that thoſe that are able to work get their bread by labour in part, or in the whole, according to their capacity; and alſo that thoſe that can work, and will not, be committed to hard labour in the houſe of correction, and their receive the wages due to idleneſs.

N. B. I would not be underſtood, that the poor and indigent are to be oppreſſed, as in too many places and pariſhes they are, and particularly were

ſo

ſo from the beginning of the year one thouſand ſeven hundred and fifty-ſix, to near the end of the year one thouſand ſeven hundred and fifty-eight. The avaricious farmers always complaining of the burthen of their poor, when they ſold one quarter of *grain* for near what three were worth, and grudged that their *poor ſlaves* ſhould eat any thing better than *horſe-beans* and *barley*, and gloried in this *their* oppreſſion and poverty; but let ſuch hard-hearted wretches conſider, that the all-wiſe Creator, the diſpoſer and diſtributor of all things, has wiſely ordered a mutability in the world: that the offspring of the great and noble may become mean and poor; and the offspring of the poor and needy be ſometimes (*as it were raiſed from the dunghill*) to ſit among *Princes*. So that thoſe in power, and above others (*if they make a proper reflexion*) have no *abſolute* authority to domineer and oppreſs; and on the other hand, the poor have as little reaſon to deſpair.

This puts me in mind of a paſſage (*to the beſt of my memory*) in Dr. Heylen's Geography, of a certain potent Indian prince, that had not only made great conqueſts over ſeveral other princes, but alſo took ſeveral of them priſoners, ſo that being lifted up with dame *Fortune's* favourable ſmiles, and thinking himſelf invincible, ordered his *chariot* to be drawn by *ſix* of theſe his vaſſal princes; one day being ſo drawn in ſtate, he obſerved one of them often looking behind him, and aſked him the reaſon, who ſaid, he looked at the chariot wheels,

wheels, and that the *ſpokes* put him in mind of the inſtability of fortune; for I obſerve (*ſays he*) that that ſpoke which was uppermoſt ſoon becomes lowermoſt, and that which is loweſt as ſoon becomes uppermoſt. This ſatyrical reproof took ſo great effect on the riſing prince, that he would not be drawn in that manner afterwards. And I remember a ſaying of a learned and eminent doctor of our church (*whoſe memory I ſhall always revere*) that he obſerved, that thoſe that oppreſſed the poor, or committed ſacrilege upon the church, that they themſelves, or their poſterity, very rarely eſcaped unpuniſhed.

SECT. XXI.

From an accurate ſurvey of an eſtate, the Steward is to make himſelf maſter of the method every tenant makes uſe of to pay his rent, and to maintain and provide for his family; he is alſo to take notice, and make a memorandum of the crops and ſtocks of cattle that each indifferent and ſuſpicious tenant keeps and feeds upon the ſeveral ſorts of land, whether arable, paſture, or meadow; by which means, he will be not only able to judge of the care that has been uſed to improve and advance, but alſo what neglects have been ſuffered to ſink and diminiſh the ſeveral produces: he ſhould alſo make an eſtimation of the number of quarters of grain of each ſort the ploughed land produces; and alſo the number of loads or tons of hay that come from the meadows.

dows. He is likewiſe to eſtimate the number of head of the different ſorts of cattle each different tenant's farm will maintain, according to the ſize and ſpecies every different ſort of land and farm is the moſt proper to be ſtocked with; by this means he may be a conſtant check upon the ſuſpicious tenants, whether they keep a ſufficient ſtock or not, for a deficiency in this, is as bad, as over-ſtocking, both which are fatal and hurtful to the intereſt of the farmer. There are a number of farmers ſink and fail through want of a ſufficient ſtock, notwithſtanding a good bargain; and over-ſtocking, and improperly ſtocking, leads ſtrongly the ſame road.

Several farmers fail upon good bargains through their own negligence, not for the want of ſkill and judgment, but for want of œconomy; for it is the vanity of ſome farmers on a good bargain to let all the world know it; they muſt ſet up for gentlemen, and vie with their *Lords*, till they get behind hand, and then make uſe of every indirect artifice and practice to make their rent, to the utter ruin of the farm; ſo that if theſe ſort of farmers are ſuffered to go on in theſe practices, the farm and the tenant both periſh together; the farm will be left in ſuch condition, that a ſufficient tenant perhaps cannot be procured, but be left to the *Lord* to lay two or three hundred pounds on it (*if a large farm*) to make it fit for another tenant half a dozen years afterwards.

It

It is a maxim in huſbandry, that a farmer ſhould ſell two rents one year with another off his farm; beſides proviſions the farm produces for the maintenance and ſupport of his family; but there is more than the difference of one rent in management, and it is hard for an ingenious tenant to pay too ſeverely for his induſtry. Therefore a Steward before he makes and gives his laſt judgment of the value of a farm, ſhould be well informed what the neighbouring *good landlords* let their land for an acre, after which, by a proper allowance for better or worſe, the true value may be come at, or very near. A true and juſt regard paid to this and all other given rules, will undoubtedly lay a proper foundation to come at the true value of an eſtate between *Lord* and *Tenant*, which ſhould always be the duty and care of the Steward to effect; for although the *Lord*'s land ought to be let to the beſt advantage, yet the tenant ſhould not be racked; but it muſt be allowed on all hands, that farming is a *fourth* or at leaſt a *fifth* part better than it was forty or fifty years ago.

Racking of tenants always tends to the diſſervice as well as the diſcredit of the *Lord*; who by being led into it inadvertently, has often ſuſtained great loſs in his rents, and in the end is lead to the ſtool of repentance.

After an eſtate is properly let and covenanted for, the Steward ſhould ſee that the tenants keep their different farms up in a due courſe of good huſbandry, that there be no danger of the rents ſink-

ſinking again to, or leſs than what they were formerly let at. To prevent this undeſirable circumſtance, the Steward ſhould ſee that all the tenants punctually perform all and every covenant which they agreed to in their leaſes; and it ſhould not be forgot to lay a penalty to each covenant, as thoſe I have drawn up in this treatiſe; for the ſinking of ſeveral fine eſtates, have been owing to irregular and uncovenanted practices.

As to ſmall farms, it is but of little ſervice to leaſe them, for ſuch tenants commonly have but little ſubſtance. Therefore the beſt way to manage them, when they tranſgreſs the rules of good huſbandry, is to reprove them, and admoniſh them to act otherwiſe for the future; but if this has not the deſired effect, then it is beſt to get *rid* of them as ſoon as poſſible, although with ſome loſs. But ſtill care ſhould be taken, that they be employed in ſome other buſineſs to get their bread in, and that they be not brought to utter *deſtruction*.

SECT. XXII.

I have one reaſon to offer why ſome farmers fail in the world that are careful and induſtrious men, and upon a cheap bargain; which is for want of ſkill or judgment, or by being dilatory in keeping their accounts, there being but few of theſe ſort of people that keep any account at all, either of their income, or their out-goings, which ſhould be carefully done by every perſon in buſineſs. It

is

is ſurprizing that theſe ſort of people ſhould be the moſt ignorant and illiterate of all others that are in any creditable employ; I would not be underſtood that I mean all are ſo, for I know ſeveral very ingenious men of the profeſſion; but I mean there are very few that underſtand how to keep any account at all, which in a great meaſure prevents their ſucceeding ſo well as they otherwiſe might do; for after a farmer has been ſome time upon a farm, it is common for him to ſay, my ſtock is ſo much *better* or *worſe* than when I entered; but if he is ſo ſucceſsful as to improve his ſtock, and get a ſum at intereſt, he is generally complaining againſt his farm as a bad bargain, and againſt the ſteward for being too much in his *Lord*'s intereſt.

From what has been ſaid, it would be proper for the Steward, and I would adviſe him, to uſe all perſuaſive arguments to prevail on the tenants, at the moſt leiſure time of the year, to put their ſons to ſchool, to learn writing, and ſome uſeful accounts, that they may be more capable than their *fathers* of keeping their accounts, and likewiſe be more fit and capable to diſcharge their truſt with credit and reputation, in ſerving the ſeveral pariſh-offices.

I remember particularly, that being impannelled to ſerve on a jury on the coroner's inqueſt, that there were but three of the twelve beſides myſelf that could ſign their names to the *inquiſition*, and

and all of them farmer tenants to the Lord of the manor, where the inquiſition was made.

N. B. *A farmer in great buſineſs, ſhould keep his accounts in as good order, and as clear as a merchant, or great tradeſman.*

SECT. XXIII.

Where the *Lord* is the *impropriator*, he conſequently has the great tythes to diſpoſe of at his pleaſure, it ſhould therefore be the care and wiſdom of the Steward, to let them in whole or in parcels, to ſuch tenants as have the worſt land, and if he parts them, to let thoſe come in for a proper ſhare whoſe lands lie at the greateſt diſtance from home, and from the conveniency of dung and manure, and not to let them to the freeholders, though otherwiſe tenants, on any conſideration; becauſe theſe will be ſure to enrich their own freehold lands, and let the *Lord*'s ſhift for themſelves, more eſpecially ſo when their leaſes are near expiring; ſo that by being let to thoſe that are tenants only, the *Lord*'s land is ſure to have the benefit, although not in proportion and alike; but where the whole ſoil is the *Lord*'s, it is proper to let every one his own, and every parcel of land will receive a juſt proportion.

It is cuſtomary in moſt places and pariſhes for the church-wardens to pay for ſparrow-heads, foxes, and other vermin. Where the *Lord* is the impropri-

ator

tor, and eſpecially if he keeps the great tythes in hand, not to ſuffer *ſuch things* to be paid for by the *conſtable* or other pariſh-officer; which is now newly brought in practice in ſome pariſhes, where that abominable cuſtom of *clown-craft* prevails, which is done purely to bring in the great tythes to pay their ſhare; but I do not think that theſe clown-craft *gentlemen* would take it themſelves; for they would bring this in evidence, that the repairs of the chancel is a good deal more than equivalent to the repairs of the church for the other part of the land, ſo that where the great tythes are the *Lord*'s, or in the hands of the Church, no new incumbrances ought to be laid upon the tythes, for the reaſon aforeſaid; for whatever new name it may bear, or whatever ſpecious pretence may be brought to juſtify ſuch practice, it is ſtill but a colour, and a new name for ſacrilege.

The Steward ſhould always be upon his watch, to prevent the freeholders incloſing any part of their lands in the common fields, which they will convert into *paſture*, and by this means leſſen the *tillage*, and conſequently the value of the *tythes*; and if they be not prevented in time, they may bring about a general incloſure on their own terms.

SECT. XXIV.

It ſhould be alſo the care and duty of a Steward to ſee that all materials the eſtate produces for

manure, or ſuch as can be converted into manure, ſuch as *lime-ſtone*, *marle*, *coal-aſhes*, *kilp-aſhes*, *weed*, *ſhells*, or *ſea-ſand*, &c. be only uſed and diſpoſed of, and diſtributed among his *Lord*'s tenants, and not to and among the freeholders and others in the neighbouring *pariſhes*. Theſe materials are very valuable to the tenants, and being kept for their uſe only, are great improvers of the *Lord*'s eſtates, both in rent and richneſs of the land; but ſuch things the Steward is apt to diſpoſe of to others to fill his own purſe; and there are many other articles too tedious here to mention, and which I ſhall forbear ſaying any thing of, except that lawful one, *viz.* the poundage of woods; for every perſon fit and proper to be employed as a Steward, knows *juſtice* from *injuſtice*, and *right* from *wrong*.

SECT. XXV.

A Steward ſhould make it his care that no part of his *Lord*'s eſtate be ſtocked with rabbits, except on large *commons*, &c. and which lie two or three miles diſtance from other more profitable and valuable land. Mr. Laurence obſerves, that the indolent ſteward on the duke of Buckingham's eſtates in Lincolnſhire, ſuffered the tenants to ſtock their farms with rabbits upon a light, blowing ſand, which when burrowed by them, became eaſily ſubject to the violence of the winds; and accordingly above one hundred and fifty acres of good

good land belonging to a neighbouring farm, have been covered with a deep ſand in leſs than a year.

It ſhould alſo be the care of the Steward that none of the tenants gather up *cow-dung* and dry it to burn, as is too commonly practiſed in Buckinghamſhire, and ſome other counties where fuel is ſcarce, which is no little prejudice to the farm.

A Steward where his Lord is diſpoſed to purchaſe, ſhould make the beſt enquiry he is able among the freeholders within or near his *Lord*'s manors, firſt by an indifferent perſon to *ſound* them, and where there is a likelihood, to apply himſelf for the uſe of his *Lord*; and when any diſtant eſtate is upon ſale, and his *Lord* is inclinable to purchaſe, he ſhould go to every one of the tenants, and prevail upon them to ſhew him their acquittances for as many years paſt as poſſible; by this means, he will come at the true value, and by the noble rule of COMPARISON, will be able to know whether it will bear an improved rent or not, which in a little time it may, if the ſoil is of that ſort that will admit of improvement, and more eſpecially ſo, if it has not felt much of it already, and moreover, if it is let on an old rent, and well timbered; and where all theſe occur, ſuch eſtate cannot well be purchaſed too dear, even at *cent. per cent.*

But there is a practice which too much prevails when an eſtate is intended for ſale, to rack and ſcrew the tenants up in their rents, more

than their ſeveral farms will bear, in order to ſell it for more than it is worth; and the landlord to make the tenant ſome ſatisfaction, will pay all the pariſh rates, and perhaps make the farmer's wife a preſent beſides; but by gentle and ſtrict enquiries, the Steward may come at the truth, and prevent his *Lord* being impoſed on in the purchaſe.

Where the *Lord* repairs his tenant's houſes, *&c.* or when there is occaſion to uſe a conſiderable quantity of lath, it would be proper, that the Steward get it run out of the *butts* of oak-ſpires, or from the *butts* of ſome ordinary ſtuff; for the bottom part of ordinary and coarſe ſtuff may be good, when the upper part is of little value, or three feet and an inch may be cut off from ſome pieces without loſs, and the other part may be a proper length for ſome other uſe it is intended for. By this means the lath may be run of a proper ſize for all purpoſes, and half the price ſaved; for three feet of timber will run ſix bunches of heart and two of ſap lath of the common ſize, and wood of *fourteen-pence per* foot, will do for the purpoſe: ſo that three feet of timber at 1*s.* 2*d.* *per* foot, is 3*s.* 6*d.* and the rending of eight bunches at 3*d.* *per* bunch, is 2*s.* which makes 5*s.* 6*d.* And ſix bunches of heart lath at 1*s.* 6*d.* *per* bunch, is 9*s.* and two bunches of ſap at 1*s.* *per* bunch, is 2*s.* and makes 11*s.* So that let this be done in what part of the *kingdom* ſoever, where the value

of

of timber and labour is different, yet the ſame will hold good in proportion; and by a timely foreſight, may always be provided when ſuch a commodity is wanted.

SECT. XXVI.

It is, and ſhould be the care and duty of a Steward, to ſee that the ſeveral tenants, whether farmers or others, keep their ſeveral houſes and other edifices in good repair. When an improvement is made on an eſtate, and a new tenant admitted, the *Lord* commonly puts all the buildings, *&c.* into tenantable repair; but after that, it is reaſonable they ſhould be kept ſo by the tenants, having rough timber aſſigned them by the Steward to do the ſame, and not left to their own wills, to haggle and cut, and make what ſpoil they will, under a miſtaken notion of *houſe-bote*, *plough-bote*, *fire-bote*, *cart-bote*. Theſe indeed have been allowed to tenants for three lives, as alſo to copy-holders on lives, but hardly ever to tenants at will, and on ſhort leaſes. A ſtrict application of theſe rules, will not only preſerve the timber and woods, but alſo prevent any bills for repairs, which are a conſiderable burthen upon eſtates.

And with regard to mills of all kinds and denominations, they are very neceſſary; but are the moſt unprofitable part of an eſtate, more eſpecially ſo, where the *Lord* finds all *utenſils*, as *ſtones*, *wheels*, *cogs*, &c. which are always devouring and never ſatisfied. In order therefore to put an end

to this conſtant demand and annual rent-charge, it would be proper to agree with the miller, or occupier of ſuch mills, to pay a certain rent agreed for (*as much as can poſſibly be got*) and let him a leaſe, and he to be at the charge of all repairs whatſoever, having rough timber allowed him, ſuch as the eſtate produces, excluſive of coggs, and ſuch trifles. But then, mill ſtones are a conſiderable article, and not ſuppoſed to want a ſupply for a conſiderable number of years, or the time the mills are leaſed for, and yet perhaps at the ſame time a third part or half of them worn out. It is hard upon the next tenant to enter into the ſame articles, as he comes in upon unequal terms. In this caſe, I would adviſe the Steward on his firſt leaſing the mills, to covenant with the miller, that at the expiration of the leaſe, he ſhall pay a certain ſum for the wear of the mill-ſtones: then on the coming in of a new tenant, it may be agreed, that he ſhall enter upon the mills at ſuch a rent, and that there is ſo much money left by the laſt tenant in conſideration of ſtones; and if this tenant enters into the like covenants as the former, and ſo ſucceſſively, the mills will be kept in a continual good condition and repair, without ſinking the *Lord*'s rent, and without hurting and affecting any one particular tenant. I know a certain gentleman, that always lets his *eſtates* for ſo much clear, and the tenants do all repairs ordinary and extraordinary, having rough timber allowed them; and they alſo pay all national taxes, with

with all other draw-backs whatſoever; and beſides, each tenant, on certain farms lying convenient for the purpoſe, is obliged to find the carriage of two loads of coals in the proper ſeaſon. Theſe and the above-mentioned diſburſements being left out of his accounts, render them quite eaſy in examining, and the *Lord* may ſee at one view, what his eſtate is, and what it is not. And every Steward in drawing up his accounts, ſhould ſet every thing forth in its cleareſt light, that his *Lord* may ſee that he not only ſtudies his *intereſt*, but his *eaſe* alſo.

SECT. XXVII.

When a tenant leaves a farm, the Steward ſhould ſee that he does not over-ſtock his paſtures and meadows the laſt month or two, by taking in joiſtments, which is not only againſt *reaſon*, but againſt *juſtice* too; but provided the tenant has not entered into covenant upon it, I cannot ſee how he can be prevented from doing what he will with his own. It would be therefore adviſeable in the Steward when he lets a farm, to inſert a covenant to prevent this *evil* for the future in the ſucceeding tenants, and agree with the tenant in poſſeſſion, on as reaſonable terms as he can. In ſome places, and on ſome farms, it is cuſtomary to leave at May-day, and even on ſome, to leave at Martinmas, which is worſt of all; which makes the Steward's care the more neceſſary, to prevent the before-mentioned abuſes as

much as poſſible; for meadows, or land of the beſt quality, when eat down to the turf at May-day, can produce but very little hay the Summer following, and the new tenant not be able to make half the rent of them the firſt year, which is but a bad beginning. It is therefore much to be wiſhed that this cuſtom of leaving at May-day, and Martinmas, was aboliſhed, as it would be no hard thing to be done, and bring in that only, of leaving at Lady-day. For ſuppoſe a perſon leaving at May-day, ſhould take a new farm which he is to enter upon at Lady-day, for an ample conſideration, he would gladly pack off to his new farm at the time he enters upon it.

It may not be improper here to give the Steward a hint, that he prevents and does not ſuffer the tenants on his *Lord*'s eſtates, to ſell off their farms as little hay and ſtraw as poſſible, and that he oblige them to ſpend the ſame on the premiſes: but in a ſcarce time, when hay ſells dear, and near London, or any other great *city* or *town*, where a great advantage can be made of it, and which conſequently enhances the value of a farm; and at the ſame time dung and compoſt are to be had at an eaſy rate, to reſtore the riches, the ſelling off the hay and ſtraw, takes away; a tenant that makes uſe of this opportunity of *gain*, ſhould be obliged under ſtrict articles and covenants, to bring three loads of dung in, for one load of hay or ſtraw carried out; but where no dung can be had but what the premiſes produce,

duce, the tenants ſhould be reſtrained from ſelling any hay or ſtraw, other than ſtraw for covering cottages, *&c.* on the *Lord*'s eſtate, in the ſame pariſh, where the old thatch and ſtraw pulled off, may be had in return.

And it is neceſſary here to obſerve, that conſtantly and yearly mowing of meadows, weakens the ſoil, and produces ſour and coarſe graſs; therefore the Steward ſhould oblige the tenant to alter the property, by an alternate mowing, and feeding, *viz.* mow one year, and feed the next, ſo that the meadow land is to be kept in two parts, one to ſerve the other, which will keep the ſoil firm and fine,

SECT. XXVIII.

It is the duty, and ſhould be the care of a Steward, to meaſure all the work of the ſeveral mechanics employed upon his *Lord*'s eſtates, committed to his truſt, and compare their meaſure with his own, and upon any conſiderable diſparity, to re-meaſure the work before them, and hear their objections.

What more immediately put me in mind of this, was, that a certain *pair* of ſawyers, that worked for a certain abſent *Lord*, employed by his under *agent*, gave it out for fact (*and it is generally believed to be truth*) that they could ſpend ſix ſhillings *per* week each, and clear eighteen ſhillings a week each man beſides, and would ſay, that they could earn three ſhillings

ſhillings and ſix-pence a-piece by one o'clock in the afternoon.

I think this ſingle inſtance enough to put every juſt and honeſt Steward upon his guard, and a ſufficient hint for every *Lord* to be a little circumſpect who he employs for his agent in regard to fidelity as well as ability: to the want of which of theſe we ought to lay it to, and attribute the great progreſs of theſe ſawyers, I leave with my judicious readers; but upon one of them being turned off, a freſh man admitted, he declared he would acquaint ———, on which he was re-admitted without *ceremony*.

I ſhall therefore give a hint of ſome advantages allowed to workmen.

Sawyers are allowed double meaſure for the breaking kerf, if the piece ſquares eighteen inches and upwards; if under, ſingle meaſure only: as ſuppoſe a piece twenty-five inches ſquare, and there are twenty-four kerfs, the ſawyers are paid for twenty-five. Framing of buildings, by the ſquare ſuperficial. —— Joiners work, ſuperficial. —— In ſtone walls, the maſon is paid from the bottom to the top, and from end to end, and round the end if hewn, and the pike or the triangular end of an end (*or bell*) wall is allowed as whole work, more eſpecially ſo, if there are pinning, or water-tables.—— All brick walls are reduced to a brick and half thick, which is called the ſtandard thickneſs.—— In ſlating, tiling, thatching, *&c.* the operator meaſures from the center of the ridge round the eaves

eaves to the wall, and the line doubled makes the breadth, and ſo far as the trowel goes is accounted the length, or other ſide: but when one ſide only is covered, the breadth is accounted from the further ſide of the ridge ſo far as the trowel goes, and round the eaves to the wall, and dormant windows the ſame, although in the roof.——Stucco work is meaſured by length running meaſure.——Painters work, ſuperficial meaſure, and the line cruſhed into every part where the bruſh touches.——Glaziers work, ſuperficial.——Paving, ſuperficial by the foot or yard, with *pebbles* by the ſquare.——Plumbers work by weight.

As the meaſuring of work greatly depends upon the judgment, as well as honeſty and fidelity of the Steward; ſo it is very improper for the *Lord* to conſtitute one of his own mechanics to ſupply the place of his Steward, or to be made his under agent.

SECT. XXIX.

A Steward on his ſurveys, ſhould ſtrictly obſerve whether his *Lord*'s tenants, and the freeholders, as often as there is occaſion, and neceſſity requires, ſcour up and cleanſe the ditches on their ſeveral farms, in order to carry off the water into the rills, brooks, and ſewers, *&c.* and alſo that he take notice of all thoſe that lay ſtraw and compoſt in the ſtreets and common highways, which greatly obſtructs the paſſage, and alſo makes the good deſigns abortive in making the ſtreets clear, perfect, and

and paſſable: in order therefore to put a ſtop to this unſeemly and ſlovenly cuſtom, the Steward ſhould preſent all ſuch offenders at the *Lord*'s court, without reſpect of perſons, that they may be *fined* according to law; in which all others that break the cuſtom of the manor ſhould be preſented, by which means all things within the pariſh and precincts of the manor would be kept in decorum and good order.

The Steward ſhould therefore by reaſoning and other perſuaſive motives prevail upon his *Lord* to hold a court every year, even in thoſe manors where fines, *&c.* are very ſmall and trifling, even although he is ſomething out of pocket by it; for the holding of a court, and by the Steward's vigilance, the *pariſh* is properly governed like a little *commonwealth*, and the *Lord* reſpected as the worthy head.

For the better carrying off all ſtagnating and ſtanding water from the little trenches, ditches, drains, *&c.* it is neceſſary that the Steward ſhould exert himſelf, and ſee that the tenants and freeholders, do out of the pariſh ſtock, provide a plough of a proper ſize, to cut large trenches in the fields, commons, *&c.* to take off the water that drains from the furrows of the lands and furlongs, *&c.* and carry it to ſome adjoining rill, rivulet, *&c.* by this method the fields, *&c.* are kept dry, and it greatly prevents the rot among the ſheep, ſo fatal in a great many fields. This plough I have mentioned in my deſcription of ploughs; and it is

the

the moſt valuable of any public *thing* belonging to a pariſh, and by being timely and properly applied, may in ſome one year be five hundred pounds advantage to the pariſhioners, in preſerving their ſheep from that pernicious diſorder.

N. B. It is neceſſary that the *Lord* keep at his *manſion-houſe* two or three dozen or more of leather buckets, with proper ladders, hooks, *&c.* in caſe of fire (from which, *Good Lord deliver us.)* It may alſo be neceſſary to be provided of a proper fire-engine, or two, theſe will not only be always ready for the uſe of the *Lord*, in caſe of an accident at the *manſion-houſe* (but alſo if ſuch a thing ſhould happen in the pariſh.) There are ſeveral inſtances of this ſort recent in memory of ſome fine *ſeats* being burnt down through inadvertency and careleſſneſs; as at Hampſtead-Mareſchal in Berks, a fine ſeat of Lord Craven's; at Fontelle in Wilts, a fine ſeat of William Beckford's, Eſq; at Middleton-Stony in Oxfordſhire, a fine ſeat of the Earl of Jerſey's, *&c.*

SECT. XXX.

It ſhould be alſo the care and duty of a Steward to ſee that none of the tenants let any part or parcel of their farms to an under-tenant or tenants, which tends much to the hurt and prejudice of the land, for the prior tenant commonly ſcrews up the ſtrings of rent till they crack, which therefore puts the under-tenant upon all indirect practices to make his rent, and to anſwer the private ends he took it for,

fit, for there is no under-tenant, that takes ſmall parcels of land, but has ſome private view in it; if them all the miſfortunes the land is ſubjected to, fall at length upon the *Lord*. I would therefore adviſe my *Lord* or his Steward on ſuch occaſions, to admoniſh or reprimand the tenant, ordering him to take the land to himſelf again at the end of the year, and if he is refractory, diſcharge him, *if tenant at will*, or otherwiſe, if there is an advantage in it, or take it from him, and receive the benefit for his *Lord's* uſe. Neither ſhould a Steward let any of his *Lord's* lands to the freeholders, within, or near his *Lord's* manors, for it is a piece of cunning in that ſort of people to lay moſt of the manure on their own land to its great improvement, and to the beggary of their *Lord's*. So that when by this piece of cunning and thorough practice, they have got what they wanted, that beggered their *Lord's* land, and enriched their own, they commonly throw it up for the *Lord* to make the beſt of it.

N. B. When a tenant on leaſe lets to an under-tenant, and not under covenant to the contrary, there is nothing to be done, but to ſee that the under-tenant ſubmits to the leaſe entered into by the principal tenant.

It would alſo be a great piece of œconomy in the Steward, where the *Lord* is not the impropriator, to procure and take the great tythes of the rectory, &c. and let them to his *Lord's* tenants, or to thoſe that have the worſt land, and where there

are

are freeholders, to exclude them; ſo will their tythes help to enrich the *Lord*'s farms. (*Vide Sect.* XXIII.)

SECT. XXXI.

It would be a piece of œconomy in the *Lord*, where the pariſh is ſmall and no manufacture carried on in it, even if it is out of his own private purſe, to put the poor boys out of the pariſh apprentices to ſome other trading place, or where there is a conſiderable manufacture carried on; by which method, in time, with induſtry and care, they may become conſiderable partakers in the trade, or at leaſt will be in a way to get their bread in a much better manner than they could by ſtaying at home, in a place where they can be of no ſervice, but be a burthen to it and themſelves too; but my meaning is, not, but what there ought to be a great deal of care and circumſpection uſed in a proper and right placing them out, as, that their *maſters* be men of reputation and credit, and that they drive on a conſiderable trade in their different branches; ſo that the *lads* want neither work to improve themſelves upon, nor bread and other neceſſaries for their uſe. (*Vide Sect.* XVI.)

SECT. XXXII.

I ſhall in this laſt *ſection* inſert ſome little *articles*, which have heretofore ſlipt my memory, but as they now occur, I ſhall deliver them with an ingenuous artleſs freedom as they ariſe.

A Steward ſhould, where houſes, barns, *&c.* are built of *ſtone*, order the *maſons* to uſe very little mortar in the walls, but fill all vacuities with ſmall ſtones called *fillers*, which prevents the mice, *&c.* from making their neſts in them, and which are their principal harbour; and it would be adviſable to make the walls of double hammered work, which entirely prevents the before-mentioned inconveniencies, in barns more eſpecially; and ſee that the maſons and all other workmen, in theſe and all other inſtances, perform their work according to *agreement*, and not that the *Lord*, his *heirs*, or *ſucceſſors*, have the ſame to re-build in half a *century*, or leſs, as is too often the caſe; ſo that theſe ſort of buildings are beſt without the *A. Domini*, in which there is almoſt as much dirt as ſtones. *(Vide Sect.* XXVIII.)

I think nothing more *abſurd*, than for *Noblemen* and *Gentlemen*, to have their *beef* and *mutton* ſent to LONDON, from their country ſeats, where a *hundred* or *two hundred* pounds a year is kept in hand for that purpoſe; for theſe articles can be bought cheaper in *town*, than the *Lord* can feed them in the country *(and as good)* conſidering the carriage, porterage, *&c.* not to mention the loſs of the coarſer pieces that are left behind and on hand, and the *Lord* muſt keep a *court* in town to ſpend all the beſt pieces of an *ox* or *cow*, whilſt in perfection.

It may be neceſſary for the *Lord* to keep pleaſure-grounds, *&c.* in hand, to keep them more clear,

clear, decent, and in better order than they otherwiſe would be in the hands of a tenant; but then I would adviſe the *Lord* and the Steward, to diſpoſe of the fat cattle in the country after the common method; but that *butter*, *cheeſe*, *eggs*, *poultry*, and *game* of all ſorts be ſent to *town* (and *veniſon* of courſe) which may be freſher and better than can commonly be procured there, and undoubtedly as cheap or cheaper.

A Steward ſhould do all in his power to promote the incloſing of land in all the manors of his *Lord*, and particularly all indifferent but improvable land, large commons, moors, *&c.* ſhewing the oppoſite party the difference between the common field and an incloſed piece, where only a hedge parts them. *(Vide Incloſures.)*

The Steward ſhould keep a ſtrict eye over all dubious tenants, and occaſionally make his report to his *Lord*, and proceed according to his orders.

It would be proper for *Noblemen* and *Gentlemen*, that have ſeveral ſeats, to reſide ſometimes upon one, and at other times upon another; or at ſome particular times at leaſt ſhew themſelves at their other different ſeats, beſide their principal or favourite one: it invigorates the ſpirits of their tenants to ſee their *Lord*; and if he would indulge them with an affable behaviour, by talking to them in their own *language* and *way*, he would highly gain their eſteem, and more eſpecially if he keeps up hoſpitality while he is among them, and en-

courages every deſerving tenant according to his merits in improving his farm, and not according to the value of the farm he rents, of which the *Lord* is ſuppoſed to be informed by his ingenious and faithful Steward: and that the *Lord* ſignify to his tenants, that their induſtry in improving their ſeveral farms ſhall not induce him to raiſe their rents *(on that account)* but that every one may ſatisfy himſelf, that he ſhall reap the benefit of his own labour and induſtry.

All that I have to add upon this head, is, that I heartily wiſh the Steward as much ſatisfaction in the peruſal and practice of this whole treatiſe, as I have had pleaſure in the compoſing it, although I more immediately intended it for the uſe of a certain Honourable Family, which I in a particular manner *eſteem, value,* and have the greateſt *regard* for.

S T E W S,

Are a ſort of diminutive or ſmall fiſh-ponds, and are of peculiar ſervice to keep and maintain fiſh in for the more immediate uſe of the family. By keeping a proper ſtock of fiſh in a Stew or Stews, they are always ready, and may be taken at any time with little trouble. It is proper to make theſe Stews in ſome proper place near the manſion-houſe, in ſome receſs in a garden, *&c.* where the fiſh will be better defended from and againſt robbers; and the journey being ſhort, they will be more immediately under the eye of every one of the family, and conſequently ſtand a better chance

chance of being fed well; and the Stews being handſomely made, and properly diſpoſed, will be an ornament to the ground they are made in. If there are great waters, as ſuppoſe *three* or *four*, and of as *many* acres each, it would be proper to have as many Stews, which may be about two perch wide, and three long each. The common method of making them, is to cut the ſides a good deal ſloping, and to carry the bottom in a continual decline from end to end, ſo as there be a convenient mouth at both ends, and deepeſt in the middle, although ſome are made in the manner of a common horſe-pond, the deepeſt part or eye being at one end; but the firſt method is much to be preferred; but then ſuch Stews ſhould be made about four perches long, and by being ſo made, the net may be drawn backward and forward, and the fiſh will not have ſuch ſhelter as the depth under a head would be; beſides the fiſh take delight in coming upon the ſhoals, by which they will thrive the better.

Stews are commonly made in a circular form, others in form of an elipſis; theſe look the moſt beautiful, although not the moſt convenient and uſeful, unleſs they are ſituated ſo that they may be quickly drawn, and as ſoon filled again; for otherwiſe, in theſe, the fiſh cannot be eaſily taken, but with a caſt-net. It is alſo neceſſary that theſe be made with a conſiderable ſlope from the ſides, and alſo conſiderably the deepeſt in the middle, in form of the ſegment of a globe, and that

of a ſpheroid. It is alſo neceſſary that the ſhoals be ſcattered with ſtones, the better to conceal the fiſh in ſunning themſelves. A ſmall ſluice is ſufficient to drain one of theſe Stews in a little time, which is to be made with a great deal of care, and in the middle, as being the loweſt part, and a handſome frame will be an ornament to the whole; and for the making it more ſo, it would be proper on each end of the frame to fix a fine ſtately artificial water-fowl, or a ſmall water-haunting-bird on the top of the ſliding piece. Stews are chiefly reſerved for carp, although not abſolutely; but if *tench* and *perch* are perceived to increaſe and proſper, other leſſer may be made to feed them in a part at pleaſure, which may be commanded without diſturbing other fiſh.

N. B. Perch will ſcarce live in Stews and ſmall waters in hot weather; but will pine, grow lean and thin, and ſometimes die. Therefore the Stews ſhould be their Winter quarters, from whence they are to be taken for the uſe of the *table*, and in Summer they ſhould be removed to the larger ponds. (*Vide Fiſh-ponds.*)

STIRK *or* STURK,

A country word for a young ox or heifer; and for a runt, a Scotch or Welſh neat or cow of a ſmall ſize.

STONE-FENCES.

In Cornwal and Devonſhire, it is common to make, as it were, two walls with flat ſtones at ſuch diſtance

diſtance as the fence is intended to be thick, laying them one upon another, firſt two, and then one on edge betwixt, and as the wall riſes, the ſpace is filled with earth, which binds all together; ſo the ſtone-work is continued, filling it up as it riſes, till it comes to a proper height, at pleaſure, beating in the ſtones at the ſides, which makes them lie firm, and is a very good mound, where ſuch proper ſtones are to be had, and affords a good ſecurity to the ground and cattle. In the north, and ſeveral other parts of the kingdom, where there is plenty of flat ſtones, fences are made of them, laying them one upon another like a wall, ſetting the top or coping ſtones in clay, to keep them together, and the better to ſecure the lower from the wet, and by their weight to make the whole lie the cloſer and faſter.

STONY-LANDS.

They are either ſuch as are full of *flints* and large *pebbles*, or ſuch as have a mixture of *free-ſtone*, *marble*, *lime-ſtone*, *&c.* and their produce is much according to the nature of the earth they are compounded of. Where the ſoil is cold in nature, it may be proper to pick the ſtones out; but in light and dry ſoils they are better left. Where they lie very thick upon a hot burning gravel, they will turn to good account pickt out to mend the highways; but upon very cold and chalky bleak hills, that lie much expoſed to winds and froſts, the ſtones

and flints prove a very good ſafeguard to the *corn*, by keeping the roots of it warm in Winter, and ſhading it in Summer from the ſcorching ſun. And it has been obſerved, that ſome of theſe lands that have been cleared of ſtones, would neither bear *corn* or *graſs*, 'till the ſoil was clothed as before, by bringing the *ſtones* to their prior habitation.

STOVER,

Straw, or any ſort of fodder for cattle.

STRAW,

Wheat or barley Straw, with a proper mixture of hay, and cut by an engine for that purpoſe, makes excellent food for horſes; the ſhorter it is cut the better. If hay or ſtraw be mixed with furz of one year's growth, or the three ingredients cut down together makes very good food, and may be practiſed when other fodder is ſcarce and dear.

STUBBLE,

The ſhort ſtraw that is left after the *corn* is reaped. In ſome places it is called hawm.

STUD, or STODE,

A large ſtock of breeding mares.

STY,

S T Y,

A place for the keeping or fattening ſwine in: but a boar is moſt commonly fattened in a different ſort of ſty, called a frank: which is made about three feet and an half wide more or leſs, and about ten feet long, and about four, or four feet and a half high, and of ſtout oak planks nailed within the caſe, ſo that theſe are about the clear dimenſions. It had better be too narrow than too wide, for if the boar can turn himſelf within it, he will neither feed well nor faſt. It muſt have a ſtrong door at each end, one to come behind to drive him out, and another before him, at which his trough is to ſtand. It is alſo proper to ſet it upon four ſtrong, ſlug wheels, the better to move it from one place to another, and the bottom is to be bored full of holes to let the urine off.

N. B. *Some franks are made without holes in the bottom, when ſo, lay the boar upon ſand.*

After this manner a calves coop may be made to ſtand in the field; but this is to be roofed at the top as a wind-mill, and by having wheels, it is more eaſily moved from one paſture to another; ſo that fine veal may be made when the cows are at paſture, as well and as good as when at home.

SUIT of Court, or SUIT-SERVICE,

Is an attendance that tenants owe to their *Lord*'s court.

SUIT-SILVER,

A ſmall rent or ſum of money paid by the freeholders to excuſe them from appearance at the Court-barons within the honour of Clun in Shropſhire.

SULL,

A word uſed in the Weſt of England for a plough.

SWANG,

A word uſed in the North of England, for a green ſwarth or furrow eſcaped ploughing, when all the land is ploughed about it.

SWARD, *or* GREEN-SWEARD,

Ground is ſaid to have a ſward, or to be ſwearded, when it is well grown or coated over with graſs and other herbs.

SWARTH *or* SWATH,

Is graſs or *corn* laid in rows by the mower from the ſcythe; in Kent it is called *Sweath*.

SYCOMORE.

The exotic Sycomore is different from ours, as bearing leaves like thoſe of the mulberry-tree, and a fruit reſembling figs; ſo that ours is improperly ſo called, as being a ſpecies of maple, with leaves like thoſe of the fig-tree; it makes an excel-

excellent ſhade; but the leaves contract a ſort of honey dew, and falling early turn to ſlime, and breed hurtful inſects, that putrify upon the firſt moiſture, and are apt to ſpoil the walks, gardens, &c. but it is ſaid, their leaves and dews afford good proviſion for bees. They are raiſed of *keys*; as ſoon as ripe commit them to the earth, and they will come up the firſt ſpring: they may be alſo propagated by layers and ſuckers from the roots; they take delight in a dry, light ſoil, but will thrive tolerably well on any ſort of land, and are to be managed as the aſh. According to ſome, the German Sycomore is thought to be beſt; but ours makes good cart and plough timber, and has divers other uſes, being light and tough; but not quite ſo good as aſh. The tree, if wounded, bleeds a long time, and the liquor not inferior to that of birch.

T.

TARES.

Theſe are a ſort of *vetches*, and are as advantageous to land as other pulſe; they are proper to feed cattle with, and the ſeed excellent food for pigeons. They are to be ſown in February, upon a dry ground, and require but one ploughing, and will do without any other manure, than the ploughing in the laſt *corn* ſtubble, for *Tares* themſelves enrich land; and no more are to be ſown in a morning than can be covered the ſame day,

day, for the dews hurt them very much. In ſome places horſe-beans and *Tares* are ſown together, which is no bad method, and are eaſily ſeparated with the riddle after winnowing.

TEENAGE,

In ſome places, bruſh-wood for hedges and fences is ſo called.

TENEMENT,

Properly ſignifies a houſe or home-ſtall, or both, but more commonly, a houſe or land that a man holdeth of another, and joined with the adjective *frank*; it contains lands, houſes, and offices, wherein we have eſtates for a term of life or in fee: ſo that frank-tenement and baſe-eſtate, are oppoſite to each other.

TENEMENTARY-LAND.

The Saxon Thanes who poſſeſſed Bockland (or Book-land, *viz.* a poſſeſſion or inheritance held by inſtruments in writing, divided them into two ſorts, *inland* and *outland*. The *inland* was the demains which the *Lord* kept in his own hands. The *outland* was granted out to his tenants under arbitrary rents and ſervices, and therefore called *Tenementary-land*, viz. the *tenants land*, or the *tenancy*.

TENANT.

TENANT.

SECT. I.

SIGNIFIES any one that holds or poſſeſſes lands or tenements by any kind of right, either in fee, or for life, years, or at will. The word in law is uſed with divers additions, as *Tenant* in *dower*, which is, ſhe that poſſeſſes land by virtue of her *dower*. *Tenant per. ſtatute merchant*, that holds *land* by virtue of a ſtatute forfeited to him. *Tenant* in *frank-marriage*, he that holds land or tenements by virtue of a gift thereof made to him upon marriage between him and his wife. *Tenant* by *courteſy*, that holds for his life, by reaſon of a child begotten by him of his wife, being an inheritrix, and born alive. *Tenant* by *elegit*, that holds by virtue of a writ called an *elegit*. *Tenant* in *mortgage*, that holds by means of a *mortgage*. *Tenant by the verge*, an antient demeſne, is he that is admitted by the rod in the court of antient demeſne. *Tenant by copy of court-roll*, is one admitted *Tenant* of any lands, *&c.* within a *manor*, which time out of mind have been demiſable according to the cuſtom of the manor. *Tenant by charter*, is he that holdeth by feoff-

feoffment in writing, or other deed. There was alſo *Tenant by knights ſervice*, *Tenant in burgage*, *Tenant in ſocage*, *Tenant in frank-fee*, *Tenant in villenage*. So is there *Tenant in fee-ſimple*, *Tenant in fee-tail*, *Tenant at the will of the Lord, according to the cuſtom of the manor*. *Tenant at will by the common law*. *Tenant upon ſufferance*. *Tenant of eſtate of inheritance*. *Tenant in chief*, that holdeth of the King in right of his crown. *Tenant of the King*, is he that holdeth of the perſon of the King, or has ſome honour. *Very Tenant*, that holds immediately of his Lord. For if there be Lord, Meſne and *Tenant*, the *Tenant* is *very Tenant* of the Meſne, but not to the Lord above. *Tenant paravael*, which is the loweſt Tenant, or him that is Tenant to one who holdeth his fee, over another, and is called *Tenant peravayle*; becauſe it is preſumed he hath profit and *avayle* by the land. So there are alſo *Joint-tenants*, that have equal right in lands and tenements, by virtue of one title. *Tenants in common*, that have equal right, but hold by divers titles. *Particular Tenant*, that holds only for his term: called *term for life or years*. *Sole Tenant*, he that hath no other joined with him. *Several Tenant* is oppoſite to *Joint-tenant*, or *Tenants in common*. *Tenant al præcipe*, is he againſt whom the writ *præcipe* is to be brought. *Tenant in demeſne*, is he that holdeth the demeans of a manor for a rent without ſervice. *Tenant on ſervice*, is he that holdeth by ſervice. *Tenant by execution*, is he that holds land by virtue of an

exe-

execution upon any ſtatute, recognizance, *&c.* with divers others.

But what I more immediately here mean by *Tenant*, is ſuch a perſon that holds *lands* of *Noblemen*, *Gentlemen*, or ſome *incorporated body*, *guild*, or *fraternity*, &c. (*which I have all along diſtinguiſhed by the appellation of Lord*) on a rent certain agreed upon between the *Lord* or his *Steward*, and the *Tenant*, whether by *leaſe* for a certain number of years, or at the *will* of the *Lord*, viz. during his pleaſure.

SECT. II.

A Tenant ſhould in all things conſult the intereſt of his *Lord*, and that of *himſelf*, viz. he ſhould take care that he does not any way, or by any means directly or indirectly, abuſe, or any way injure his *Lord*'s eſtate committed to his *care* and *truſt*, whether the Steward be a man of a penetrating judgment or not: either by over-ploughing, (*where he is not reſtrained by covenant*) or by any other way or means whatſoever. For by ploughing more than he can well dung and manure, he may ſoon bring his farm and himſelf to poverty; for in a great meaſure, it is a miſtaken *notion*, that ploughing a great part of a farm requires but a ſmall ſtock; ſo that when a Tenant has but little ſubſtance, he commonly runs into that too often miſtaken *notion* of ploughing up all land that is any ways fit to be converted into arable: this may do very well for three or four

four years; but then, if this is done when *grain* is cheap, little or nothing will be laid up over and above *rent* and *charges*.. When this is over, all comes to ruin at once, the *land* for want of manure, and the *Tenant* conſequently through a deficiency in his crops; for nothing is more deſtructive to land than laying it down poor, this has been the ruin of many farms, and puts a ſtop to all ſuch reaſonable advance of rent as might have been made, by rendering it almoſt impoſſible, without an immenſe charge, to reſtore it to its former riches and ſtrength: for he that ploughs a great part of his farm, ſhould lay in a proportionable ſtock of *dry* or *incalved* heifers, to eat the ſtraw, and convert the refuſe into manure to keep up the land in heart, and to reſtore thoſe riches the plough has taken away: ſo that over ploughing, requires more ſtock than too many unſkilful farmers are aware of: ſo that when a *Tenant* puts himſelf upon this indirect practice, the judicious Steward muſt conſequently think all is not right, either that the Tenant is put to his ſhifts, or that he is getting the *heart* out of his farm, and intends ſoon to leave it.

SECT. III.

Another thing is no good ſign of a Tenant's ſucceeding well, when he keeps a greater ſtock of horſes than his farm requires, in order to go to *higgle* cart, taking carriage where he can find it: this is generally as deſtructive to the farmer

as

as the ſword to the *army*. This occaſions a neglect of buſineſs; for thoſe that take to this way of life, very ſeldom think of home, or what requires their perſonal attendance there.

I know a *Lord* that has a tenant who took to this way of life, and *ſoon* got two years rent or more behind: when he frankly told the tenant he muſt provide himſelf of another farm; for, ſays he, I ſee no ſigns of your ever paying any rent; which gave the farmer great concern, knowing his *Lord* had the greateſt regard for him. In a week's time the Tenant comes to his *Lord* with a half year's rent, and begged he would continue him; on which his *Lord* told him, he ſhould continue, and take his money back, and pay when he was more at leiſure. On the Tenant's promiſing obedience, and being reſtrained by his *Lord* from his former *method*, and every way proceeding according to his *Lord*'s directions in the management of his farm; he ſoon paid up his rent, and has ſince made a purchaſe of a ſmall freehold.

SECT. IV.

He that keeps a great number of horſes, and more than his farm requires, if he does not take to carting abroad, they eat up the beſt part of his fodder at home, and if he goes out, he carries away the beſt part of his manure from his farm; beſides, when they lie at graſs, they ſpoil and *turn* his land (*if of a good quality*) into a very bad one, making

making the ſoil both ſour and coarſe; and the Steward muſt be a weak man, if he does not ſee that he well dungs all land ſo eaten, once every three years or oftner, and not to ſpare his other for it neither; if this is not practiſed, ſuch land will ſoon be worth little, and reduced to the utmoſt ruin and poverty.

SECT. V.

Great improvements may be made on large and extended parcels of unincloſed land, eſpecially on a warm ſoil that is well ſheltered, by having moveable hurdles, poſts and rails, *&c.* by theſe artifices, the cattle are moved from one freſh paſture to another, and likewiſe more cattle may be kept, and thoſe better fed; for a repeated ſucceſſion of freſh food affords them better nouriſhment, by which they are obſerved to *fatten* the ſooner: ſo that in caſe large *parks*, *chaces*, *&c.* happen to be kept in hand, the Steward may have regard to it, as a thing that will turn to good account with a little charge; and the ſame will hold good when ſuch are in the hands of a Tenant.

SECT. VI.

Mr. Laurence mentions in his duty of a Steward to his *Lord*, p. 46. That a certain farmer, to prevent his hedge-ſtakes from being ſtolen, did, " by " the help of a large nail-piercer, bore holes ſlant-

" wiſe

"wiſe in ſeveral of the faireſt and moſt tempting "ſtakes, then filling the holes with gun-powder, "and pegging them very faſt; and, to prevent "any ſuſpicion of a deſign, he daubed the part "over with dirt, and then left them ſtanding in "a careleſs manner. The deſign quickly took, "and the ſtakes were gone; ſo it may be gueſſed "it was not long before the rumour of a *por-*"*ridge-pot* being blown up, was got about the "pariſh. And this method was effectual, for ever "after his hedges were preſerved from robbers."

Mr. Laurence purſued the above directions, which met with the following ſucceſs. At Yelvertoft in Northamptonſhire, where the late Dr. Laurence, brother to Mr. Laurence, was formerly rector, R. B. of that *place*, bought a conſiderable parcel of fire-wood, and laid it in the ſtreet. A neighbour of his, R. M. makes free with ſome of it, as his occaſions required; and particularly one Saturday night, in order to boil the pot on Sunday. B. perfectly knowing the man, goes to J. R. a carpenter at the next door, and borrows a ſmall auger, and bores one of the moſt tempting and ſuſpicious pieces, and fills the hole with gun-powder, and croſs-peggs it up, and daubs it over with dirt: on Saturday night the bait took, for on Sunday morning B. going to church by M's door, M's wife runs out and cries *murder*, on which B. runs into the houſe, and ſeeing nothing but *ſmoke* and *confuſion*, and the fire ſcattered upon the floor, *&c.* very cooly aſks the

reaſon; the woman in her fright, declares the whole fact, and her *huſband* ſtanding by, looked very fooliſhly: on which B. told him, if he had done him any damage, he would give him a piece of wood to make him amends: and ſo the affair ended, only that when the *man* paſſed the ſtreets, the *boys* would call out *murder*, *ſmoke*, *fire*, *&c.*

N. B. I don't recommend the above practice, but only inſert it by way of caution, to let the unwary underſtand how they may be detected.

SECT. VII.

A Tenant, before he takes a *farm*, ſhould be well ſatisfied of his own *ability*, as well as the Steward; for want of which he muſt certainly run behind-hand: for a farmer ſhould have three rents to begin with, and the want of ſuch a ſubſtance, either forces him to breed upon ſuch land that will *feed*, or to take in joiſts at any rate, till he can raiſe a ſtock of his own, which often proves the ruin of a tenant, unleſs he rents his farm at half the value.

A Tenant ſhould alſo ſtock his farm with *cattle* ſuitable to the ſoil, and as a farm may be compounded of different ſoils, ſo he ſhould be provided with different ſorts of *cattle*. The beſt paſture and meadows ſhould be ſtocked with the beſt and largeſt *cattle*, the middling paſture and meadow with a leſſer ſize, and the worſe with a ſmaller ſort (*or a breeding ſtock*) to go off to better land to be made fat.

SECT.

SECT. VIII.

Farmers that have lands lying near towns, where ſeveral *tanners* carry on a conſiderable trade, for at a very eaſy rate they may procure the liquor from the *tan-vats*, and alſo the refuſe bark and all other refuſe belonging to the tanner, *tawer*, or other leather-dreſſer; and alſo if the water on the draining off malt-ciſterns was made to find its way to the adjacent meadow-land, no greater riches can be deſired; as alſo the draining of the ſtreets, *&c.* of large market-towns, enriches and improves land ſurprizingly: and lands properly over-flowed by *brook* or *river* waters that take in the draining of ſuch towns, improves land in the higheſt degree. For all other different managements, I refer the Steward, *&c.* to the other ſeveral heads where they are treated of.

TENURE,

Is the manner whereby *tenements* are *holden* of their *Lord*, is too various here to be mentioned; only it ſhould not be forgot that the family of the Barnham's hold the manor of Nether-Bilſington, in the county of Kent, by this *Tenure*, *viz.* by carrying the laſt diſh of the ſecond courſe to the King's table at his coronation, and preſenting him with three maple cups. And likewiſe the manor of Scrivelſby in Lincolnſhire, belonging to the Dymoke's, is held by the following ſervice of grand ſearjeantry, *viz.* When any King of England is to be crowned, the Lord of this manor for the time being, or ſome in his name, if he ſhould be

unable, ſhall come well armed for war upon a good war horſe, in the preſence of our Lord the King, on the day of his coronation, and ſhall cauſe it to be proclaimed, that if any one ſhall ſay, that our Lord the King has not a right to his crown and kingdom, he will be ready and prepared to defend with his body, the right of the King and kingdom, and the dignity of the crown, againſt him and all others whatſoever. There is likewiſe a petty kind of ſerjeantry, of which I ſhall give the following inſtance, as being a comical one, *viz.* Hemington in the county of Suffolk, was held by ſerjeantry by Baldwin de Pettour, who was every Chriſtmas-day to perform before the King of England, one *Saltus*, one *Suffletus*, and one Bumbulus: or as it is read in another place, to hold it by a *Saltus*, a *Surfflus*, and *Pettus*, viz. he was to dance, make a noiſe with his cheeks pufft out, and to let a fart. (*Cambden's Britannia*, p. 372.)

TERRIER.

A TERRIER *of an open field manor farm.*

Lady-day, 1759.

A true and perfect ſchedule or Terrier of all and ſingular, the arable, lay-meadow, paſture, and feeding commons and commons of paſture, and all other the known grounds and lands, lying and being diſperſed in the open, common, and commonable fields within the pariſh, manor and precincts of A. in the county of C. belonging to Sir D. E. Baronet, called and known by the name of Bucknall's-hall farm, accuſtomed, computed, and from time immemorial accounted to be,

be, and to contain by eſtimation, *fifteen yard-land*, according to the meaſure of the lands of the ſaid manor. Together with the manſion or manſion-houſe, dove-cote, homeſtall, and two cloſes of paſture adjoining to the ſame: as the ſame was adjuſted and ſet forth by a jury of twelve honeſt, ſubſtantial, and ſkilful farmers, jurors empannelled at the *Court-baron*, held by the aforeſaid Sir D. E. Lord of the manor of A. aforeſaid, on the ——day of——and the——days following preceding the date hereof.

NAMELY,

In the North-field.

	A.	R.	P.
On Herd-hill furlong, ten ridges lying together, with haydes at both ends. T. S. eaſt and N. C. weſt. *Containing*	5	1	—
On the ſame furlong, ſix ridges more together, with haydes at both ends. L. M. eaſt, and T. B. weſt. *Containing*	4	2	2
On Crow furlong ſix ridges together, with haydes at the ſouth end only. One of which ridges being the headland, Herd-hill leys abutting on the eaſt, T. B. weſt. *Containing*	5	3	10
On Bean furlong, the ten outermoſt ridges next Bromwich leys, with haydes at the weſt end only, L. S. north, and N. C. ſouth. *Containing*	6	1	19

	A.	R.	P.
On the ſame furlong, fifteen ridges lying together, with haydes at both ends, T. S. north, and N. C. ſouth. *Containing*	10	—	—
Behind Bean furlong, a ſingle headland, with a headland hayde. Dockholm furlong abutting on the ſouth, and L. M. north. *Containing*	1	—	14
On Ridge-way furlong, twenty ridges together, with haydes at both ends. C. D. eaſt, and T. M. weſt. *Containing*	9	1	—
On Bromwich-way furlong, two ridges together, without haydes. T. S. north, and N. C. ſouth. *Containing*	—	3	17
On Bromwich-way-end, a ſingle ridge, ſhooting on Bromwich-ford, with haydes at both ends. C. D. north. T. M. ſouth. *Containing*	—	2	—
On Townſend furlong, the eleven outermoſt ridges, next Clarke's Cloſe, with haydes at the north end only. The lands of T. B. eaſt. The common highway, by Clarke's Cloſe on the weſt. *Containing*	7	3	10

On

	A.	R.	P.
On Hogſlear furlong, three ſingle ridges, with haydes at both ends. The firſt, neareſt the Townſend. T. C. eaſt. T. M. weſt.			
A. R. P. *Containing* 0 1 16 The ſecond from the Townſend. The ſaid C. D. eaſt. T. M. weſt.			
A. R. P. *Containing* 0 2 0 The third from the Townſend. The ſaid C. D. eaſt. T. M. weſt.	1	1	6
A. R. P. *Containing* 0 1 30			
On Green-hill furlong, nine ridges together without haydes. The Priory lands on the north. T. B. ſouth. *Containing*	8	1	15
On Long Bromwich-way, twenty ridges together with haydes at the eaſt end only. The Priory lands on the north. T. S. ſouth. *Containing*	9	2	15
On Aſtroit furlong, five ridges together without haydes. T. M. eaſt. T. B. weſt. *Containing*	3	—	21
On Stone furlong, ſix ridges together without haydes. The Priory lands on the eaſt. E. D. weſt. *Containing*	3	1	—

	A.	R.	P.
On the Mear furlong, a ſingle headland with a headland hayde, abutting on the Mear. Eleven furlong abutting on the eaſt ſide. L. S. weſt. *Containing*	1	1	—
On Eleven furlong, the whole being eleven ridges with haydes at both ends. The Mear furlong abutting on the north, and Downdike on the ſouth. Itſelf abutting on Cut-thorn furlong eaſt, and Dock-holm weſt. *Containing*	6	3	11
On Docky-Holm furlong, ſixteen ridges without haydes. The Priory lands eaſt and weſt. *Containing*	7	1	3
On Cut-thorn, a ſingle ridge without haydes. The Glebe lands on both ſides. *Containing*	1	—	—
On Whitland, fifteen ridges together without haydes. The Glebe lands on the eaſt. The Priory lands on the weſt. *Containing*	12	—	—
On the ſame furlong, two ridges more together without haydes. T. C. on the eaſt. T. B. weſt. *Containing*	1	1	11
Arable	106	2	34

GREEN-

GREEN-SWEARD and LAY-GROUND.

	A.	R.	P.
On Wold furlong, fifteen leys together. C. D. north. T. M. ſouth.			
Containing	12	1	1
On Plowman's leys, ſeventeen leys together. The Priory lands on the eaſt. The Glebe weſt.			
Containing	14	3	16
On Long Wold, twelve leys together. T. S. north. T. M. ſouth.			
Containing	5	—	19
On Ford-way, ſixteen leys together abutting on Plowman's leys eaſt. Wattling-ſtreet weſt. The Priory lands north and ſouth.			
Containing	8	1	—
On Hall-ground leys, ſeventeen leys together. The Priory lands north and ſouth. *Containing*	7	3	—
Ley and graſs	38	—	36
Arable	106	2	34
Total of both	154	3	30

HAYNE FIELD.

On Green-hill, ſeventeen ridges together, with haydes at one end only. The lands of J. C. north. T. B. ſouth.			
Containing	14	1	30

On

	A.	R.	P.
On Mear furlong, ſixteen ridges together, without haydes. E. D. eaſt. T. M. weſt.			
Containing	8	3	11
On Brokenback furlong, eleven ridges together, without haydes. The Priory lands on both ſides.			
Containing	5	1	1
On Longlands, twenty ridges together, without haydes. The lands of T. S. eaſt. N. C. weſt.			
Containing	10	—	30
On the Heath furlong, two ſingle ridges, with haydes on both ends. The firſt from Fox-holes. The Priory lands eaſt. The Glebe weſt.			
A. R. P.			
Containing 0 2 13			
The ſecond. The lands of L. C. eaſt. W. C. weſt.			
A. R. P.			
Containing 0 3 00			
Containing	1	1	13
On the Butts on the Brook furlong, ten ridges with haydes at both ends. The Glebe lands eaſt. The Priory lands weſt.			
Containing	5	1	10

On

	A.	R.	P.
On Stone-hill, a ſingle headland, without haydes. Fox-holes furlong abutting on the eaſt. The Glebe lands weſt.			
Containing	1	1	1
On Wakeling furlong, the outermoſt twenty ridges, with haydes at both ends, lying next to Water-furrow leys. A ley of T. S. north. The Priory lands ſouth.			
Containing	13	3	3
On Fox-holes, a ſingle ridge, with haydes at both ends. The lands of T. M. on the eaſt. T. B. weſt.			
Containing	1	—	10
On Oat-hill, twenty ridges together, without haydes. The lands of L. M. on the north. N. C. ſouth.			
Containing	10	3	19
On Ruſh furlong, two ridges together, with haydes at one end. The lands of N. C. eaſt. The Priory lands weſt.			
Containing	1	1	16
On Lear furlong, nineteen ridges together, without haydes. The Priory lands eaſt. The Glebe lands weſt. *Containing*	17	—	1

On

	A.	R.	P.
On Beak-holm furlong, eleven ridges together, with haydes at both ends abutting on Church-way, weſt. The lands of N. C. north. The Priory lands ſouth. *Containing*	7	3	34
On Fat furlong, four ridges together, without haydes. The lands of T. M. eaſt. T. B. weſt. *Containing*	3	—	17
On Harbour furlong, eleven ridges together, with haydes at both ends. The Glebe lands north. T. C. ſouth. *Containing*	5	—	—
On Gobling furlong, twelve ridges together, without haydes. The Chauntry lands north. The Priory lands ſouth. *Containing*	10	—	—
On Fern-hill, a ſingle ridge without haydes. The lands of T. C. eaſt. T. M. weſt. *Containing*	—	1	31
Arable	117	1	17.

GREEN-

GREEN-SWEARD and LEY-GROUND.

	A.	R.	P.
On Water-furrow leys, two leys together. The Priory lands north. The Chauntry lands ſouth.			
Containing	—	3	11
On Fulwell, ſeven leys together. The lands of W. R. eaſt. T. C. weſt. *Containing*	4	3	9
On Breach, fifteen leys together. The Priory lands eaſt. The Chauntry lands weſt.			
Containing	11	3	7
On Church-way, four leys together. The lands of T. C. north. T. M. ſouth. *Containing*	1	—	19
Leys and graſs	18	2	6

The HALL-FIELD.

N. B. *The Hayne and Hall-fields are common, and ſeveral together, as one field.*

On Well-hill, five ridges together, with haydes at both ends. The lands of T. S. north. E. B. ſouth.			
Containing	3	1	17
On Down-hill, ſeventeen ridges together, without haydes. The Priory lands on both ſides.			
Containing	13	2	9

On

	A.	R.	P.
On Batchcoal furlong, ſix ridges together without haydes. The outermoſt being a head-land, Oat-hill abutting upon it on the eaſt, the lands of T. C. weſt.			
Containing	5	1	13
On Gallows-bank furlong, nine ridges together without haydes, the outermoſt being a headland. Golding furlong abutting upon it on the north, the lands of T. B. ſouth.			
Containing	6	1	15
Arable	28	2	14

GREEN-SWEARD and LEY-GROUND.

In Horſe-croft, three leys together. The Priory lands on both ſides.			
Containing	—	3	31
On Oat-hill, ſeventeen leys together, one of which is a headley to Golding furlong. The glebe on the eaſt, the Priory lands weſt.			
Containing	11	3	17
One entire piece of land called Golding-piece, incloſed with a quick-hedge, open and common at Lammas.			
Containing	8	1	3

On

	A.	R	P.
On Red-hill, twenty leys together, the outermoſt of which is head ley to Oat-hill. The Chauntry lands on both ſides			
Containing	11	1	30
Leys and graſs	32	2	1

In the HAYNE-FIELD.

	A.	R.	P.
Total of arable lands and haydes	117	1	17
Total of leys and graſs	18	2	6
Hayne-field	135	3	23

In the HALL-FIELD.

	A.	R.	P.
Total of arable lands and haydes	28	2	14
Total of leys and graſs	32	2	1
Total of Hall and Hayne-fields	196	3	38

In the MILL-FIELD.

On Larkley-hill, fifteen ridges together, with haydes at both ends. The lands of T. B. eaſt, T. M. weſt.			
Containing	14	—	11

On

	A.	R.	P.
On Port-low furlong, nine ridges together, without haydes. The Low upon the eaſt end of the middlemoſt hayde. The Priory lands north. T. C. ſouth.			
Containing	5	1	1
On Sharman's yards end furlong, ſeven ridges with haydes at both ends. The Priory lands on the North. T. B. ſouth.			
Containing	2	2	2
On Clay-land furlong, ſix ridges together without haydes. The Glebe on the eaſt, W. R. weſt.			
Containing	3	1	3
On Pypſholm furlong, nine ridges together without haydes. The lands of N. C. north, T. C. ſouth.			
Containing	5	3	32
On church-way furlong, ſixteen ridges together, with haydes at both ends. The Glebe on both ſides.			
Containing	8	3	11
On High-thorn furlong, eleven ridges together without haydes. The lands of N. C. north, W. R. ſouth			
Containing	6	1	31

On

	A.	R.	P.
On the furlong behind the CHURCH head-land, nineteen ridges together, with haydes at both ends abutting on the head-land weſt. The Priory lands north and ſouth.			
Containing	12	3	21
On Silſholm furlong, a ſingle ridge without haydes. The lands of E. D. eaſt, T. S. weſt.			
Containing	1	—	—
On Three loaves furlong, eight ridges together, with haydes at both ends. The Priory lands north, the Glebe ſouth.			
Containing	3	3	3
On Neaſborough furlong, five ridges together without haydes. The lands of E. D. eaſt, T. D. weſt.			
Containing	2	1	11
On Croſs-holt furlong, nine ridges together with haydes at both ends, one of which is a headland, the Holt furlong ſhooting on it eaſt, the Glebe weſt.			
Containing	6	1	17

	A.	R.	P.
On Blakemoor furlong, two ſingle ridges, one a head-land without haydes. The Holt furlong ſhooting on the north, the lands of T. M. ſouth. A. R. P.			
Containing 1 1 11			
The other with haydes at both ends. The lands of T. C. north, T. B. ſouth. A. R. P.			
Containing 1 0 12	2	1	23
On Bean furlong, ſix ridges together without haydes. The Priory lands eaſt, the Glebe weſt.			
Containing	6	3	14
On the furlong called behind Bean-furlong, ſixteen ridges together, with haydes at one end only. The lands of T. S. north, T. B. ſouth.			
Containing	10	1	38
On Cockle-hill furlong, fourteen ridges together, with haydes at both ends. The Priory lands eaſt and weſt.			
Containing	11	3	14
On Shawell-hill furlong, nineteen ridges together, with haydes at one end only. The lands of T. C. eaſt, T. B. weſt.			
Containing	13	1	1

On

	A.	R.	P.
On Goſ-hill furlong, twelve ridges together, without haydes. The Priory lands on the north, the Glebe ſouth.			
Containing	6	3	59
On Kerſey furlong. The WHOLE, being twenty-four ridges, with haydes at both ends, Goſs-hill furlong abutting on the north, Blakemoor on the ſouth. The Gap-furlong on the eaſt, and Hawkley-hill furlong on the weſt.			
Containing	13	1	11
Arable	137	3	3

GREEN-SWEARD *and* LAY-GROUND.

On Townſend leys, five leys together, ſhooting into the Bull-pit. The lands of T. B. north, T. C. ſouth. *Containing*	2	3	18
On High-down, four leys together. The lands of T. M. north, the Glebe ſouth			
Containing	2	3	27
On plowman's furlong, twenty leys together, the outermoſt being the headley. Hawkley-hill furlong ſhooting on the eaſt, the Priory lands weſt.			
Containing	13	1	11

	A.	R.	P.
On High-leys, ſeven leys at the bottom towards Well-hill, ending in a point at the upper end, being a perfect TRIANGLE. The lands of N. C. eaſt, the chantry lands weſt. *Containing*	4	1	32
Leys and graſs	23	2	8
Arable	137	3	3
Total of both	161	1	11

MEADOW-GROUND.

In the great meadow, twelve perch wide, the eaſt-end ſhooting on Woodway, the weſt-end on Red-hill. The Priory lands on both ſides. *Containing*	12	1	13
In the little meadow, ſix perches wide. The weſt-end ſhooting on Woodway, the eaſt-end on Barley-croft, the glebe on both ſides. N. B. The above go the whole length of the meadows. *Containing*	3	3	37
In aſh-moor, a triangular piece, the perpendicular ten perch and a half, the baſe next Red-hill nine perch. The lands of N. C. eaſt, T. C. weſt. *Containing*	—	1	7
Meadow	16	2	17

The known land in all the fields collected and made one aggregate, or ſum total.	A.	R.	P.
The North-field	154	3	10
Hayne-field	135	3	23
Hall-field	61	0	15
Mill-field	161	1	11
Meadow	16	2	17
Sum total	529	2	36

LOT-GROUND.

A right to a proportionable quantity of *lot graſs* on *Fox-boles*, and on *Hart-leys*. With a right to a proportionable quantity of *lot-furz*, in the *common wold and pen* in the Hayne-field.

As alſo a proportionable quantity of lot-graſs on Blake-moor, and in Cart-way ſlade in the Mill-field.

N. B. In the North-field, there is no lot-ground to any farm within the manor.

COMMON *and* COMMONS *of* PASTURE.

In Dow-bank or Great-paſture.

A right of common for thirty-eight cows.

In Red-hill or Little-paſture.

A right of common for twenty-two cows. At *four* beaſts for a *yard-land*.

Alſo a right to common a BULL at large, by cuſtom of the manor.

In the WOLD.

A right of common for fifteen *ſtirks*, or *bullocks*, at one *ſtirk* or *bullock* for a yard-land; but for one *ſtirk* or *bullock* may be paſtured two yearlings, or beaſts of one year old, or three calves.

N. B. *All the paſture-lands are undivided.*

Theſe commons commence the fourteenth day of May, and continue till the twelfth day of Auguſt, at which time the commons extend to ſeven beaſts for a yard-land, which extent amounts to one hundred and five beaſts, to paſture from the fourteenth day of Auguſt aforeſaid, to December the eleventh following, when all horned beaſts are to be taken out of the open fields.

Alſo a right of common the year round for *ſix hundred* ſheep. The lambs to be accounted for ſuch at St. Martin's day.

And alſo a right of common for *forty-five* horſes, from Auguſt the twelfth, to St. Martin's-day; but provided ſuch commons are not ſtocked by their owner, the remaining commons, by and according to the cuſtom of the manor, are not to be *let* or *ſet*, but go empty, for the benefit and good of the other commoners in general.

MEMORANDUM.

That this ſchedule or terrier was taken from the *meares*, *beacons*, and *tokens* of bounds ſet up by, and by the appointment of the jury, jurors empanelled to ſerve at the *court-baron* held as firſt and before-mentioned, who abſolutely and unanimouſly agreed

agreed in all and every circumſtance concerning the ſame, and that all and every thing herein ſpecified, is, and are agreeable to the lands of the other freeholders in the ſame fields, precincts and manor aforeſaid.

In witneſs whereof we have hereunto ſet our hands this——day of———and in the year of our Lord one thouſand, ſeven hundred, *&c.*

Jurors Names.

From the above-mentioned account, this ſurvey is taken in all things agreeable thereto, to the beſt of my knowledge.

As witneſs my hand this——day of——and in the year of our Lord, *&c.*

A. Z. *Land-Surveyor.*

It is very neceſſary, and it is the duty of a Steward, to have all his *Lord*'s open field manors terriered in this manner, (*and not from a common ſurvey only*) this will ſtand the *teſt* againſt all incroachments whatſoever. For when part or all is parted and parcelled out, and ſome perhaps among freeholders, it is poſſible an *acre or two* may *ſink*, and the *Lord* and his Steward never find any alteration in the ſoil.

N. B. From this terrier, it is very eaſy to draw thoſe of every particular farm parcelled out from the whole. The preamble being omitted and the ſurvey, there will remain a common terrier: only it is neceſſary to mention the number of yard-lands where farms go by that meaſure,

otherwiſe ſuch a farm with the conditions of it. It is alſo neceſſary to give every tenant a terrier with his farm on entrance, and the Steward to keep a counter-part. By this method the *Lord*'s land is ſecured, and the *tenant*'s property in it, againſt all incroachers and uſurpers whatſoever.

THATCH.

This is too common a covering for houſes, *&c.* in country villages. The beſt ſort is called *helm:* which is *wheat* or *rye* ſtraw, with the ears cut off, and not bruiſed by threſhing or otherwiſe, and then bound up in bundles for uſe; which being well laid, lies thin, laſts a long time, and is much neater than the common way of thatching. Helm is the common covering in Somerſetſhire, *&c.* It is bound on and held together by *laths*, *windlings*, *ſprays*, and *thatch-pricks*, all performed by the thatcher. A good load of common threſhed ſtraw will cover about two ſquares and a half of work on bare lath, and a thouſand bundles of reeds will cover about three ſquare, and are generally tied on with *withies*, but old pitched ropes unwound are much more laſting, and conſequently better for the uſe.

N. B. In ſome part of Northamptonſhire, the thatcher binds on the thatch with ropes made of hay, of which old hay is to be preferred, well ſprinkled with water, and beat, and then twiſted into a three-ſtrond rope, and fixt to a needle made much like a large and ſtrong lath with a point.

This

This is a very durable way, and much preferable to withy, *&c.*

THIRDINGDEAL.

It ſignifies the third part of ſome integer, in the meaſure of land, as the third part of a yard-land, *&c.* but at Morton-Pinkney in Northamptonſhire, it ſignifies the third part of a quartern of land, and at Saliſbury, a meaſure that holds three pints of beer is called a Thirdingdeal.

THIRDINGS.

The third part of the corn or grain, growing on the ground at the tenant's death, due to the *Lord* for a herriot within a certain manor, and lands belonging to the manor of Turfat in the county of Hereford.

THISTLE-TAKE.

A cuſtom within the manor of Halton, in the county Palatine of Cheſter, that if in driving beaſts over the common, the driver permits them to graze, or take but a thiſtle, he ſhall pay a half-penny a beaſt to the *Lord* of the fee. And at Fiſkerton in Nottinghamſhire, by ancient cuſtom, if a native or a cottager killed a ſwine above a year old, he paid to the *Lord* a penny, which purchaſe of leave to kill a hog was alſo called Thiſtle-take.

THORN.

The white bears the bell for fencing, and is raiſed either from ſeeds called *haws*, or plants called

called *ſets:* the moſt ſpeedy way is from *ſets*, but the former is leaſt chargeable, but requires a longer time to come to perfection; but the black-thorn or ſloe-buſh makes as durable a fence, only this is apt to produce a great number of ſuckers that run out of the hedge into the ground or field, which makes the mound irregular, and damages the ſoil.

TIGH *or* TEAGE,

In old records, it means a ſmall incloſure or croft, and in Kent the word is uſed in the ſame ſenſe now.

TILING.

Tiles ſhould be burnt till they have a black cruſtacious matter through the middle, which is not to be found but on breaking; ſo that to prove them, is to take *two* or *three* at a venture, and break them, and if they are found to have this black vein, they may be depended upon as well burnt; or if they look of a very dark red, like coagulated blood, they may alſo be depended upon, but thoſe of a light pale red, may be ſaid to be bad, and not worth laying up, for the firſt Winter ſcales them and makes them fly, and the more ſo by being laid in lime (*three buſhels of which with proper ſand will lay a ſquare of work*) therefore ſome prefer a mixture of *loam* and *horſe-dung*, tempered very high, and laid about the middle of the tile, ſo as not to touch pin or lath, nor yet ſo near the

the point as to be waſhed out; becauſe lime being of too corroſive and fretting a quality, is apt to make the tiles ſcale, and when the fire is out it gives them ſuch a coldneſs as to encourage the growth of moſs. In ſome places of Northamptonſhire, there is a ſort of brick and tile made, that are of a ſtraw colour, and are preferable to all others; the tiles being as durable as the beſt ſlate: I have ſeen ſome that have been taken off a houſe, where they had lain (as ſuppoſed) an hundred years, and they were as ſound and firm as when they were firſt laid. In Northamptonſhire, tiles are made with a ſort of lip in the middle of the end to hang by, and not hung by a pin; this ſaves the trouble and charge of pinning, and beſides the tile hangs by the middle; for although thoſe made for pinning are made with two holes, yet not more than one is pinned, ſo that the tile hangs not true; moreover the pin is ſubject to rot, but the lip is not ſo.

TILLAGE.

This is a moving or ſtirring of ground, which being performed on the upper cruſt enters to a certain depth, and cauſes the upper and lower parts of the ſoil to change place. Anciently the ſpade was uſed as well as the plough *(as it is now in Barbadoes, and in ſome other of our plantations abroad)* but with us the plough is found more expeditious and convenient, and the other is laid aſide (*our ſoil being deeper than theirs.*) There are ſeveral different

different ſorts of ſoil proper to be converted into *arable*, or fit for the plough; as for inſtance, ſuch as is clayey, ſtiff, cold, and moiſt, which is commonly thrice ploughed, *viz.* in the Spring, Summer, and at ſeed-time, for wheat, and four times for barley, if it be the firſt grain ſown after a long *lay*, which is not very common, though I know a Gentleman that ſowed ſeventy acres on the turf, in the manner as oats are ſowed, and ſucceeded very well. Theſe ploughings are very advantageous to the ſoil, for hereby the ground by degrees is laid in ſuch ridges and to ſuch a height as the nature of the land requires, for the more they are in number, and the higher the ridges, the better they are for wheat, which delights moſt in a moiſt ſoil; ſo that it be laid dry, and be not ſubject to be drowned or over-glutted with wet. It is a means alſo to make the ſoil lighter, and fitter for the ſeed to take root in, as the clods are apter to diſſolve by being expoſed to the weather, and being often broken by the plough, *&c.* which kills the weeds, and brings the ſoil to a proper temper to receive the penetrating and nitrous dews, and other heavenly influences, which more eaſily congeal and fix on a light earth, than on a heavy and lumpiſh ſoil; for theſe penetrating ſalts not only actuate upon the ſeeds to promote vegetation, but alſo ſerve to defend it from the extremities of the weather, eſpecially cold and piercing winds: the unevenneſs of the ground alſo greatly protects the grain from injuries of the weather when it is very ſevere, and the ſeaſon rigorous:

upon

upon which account, in open champains where the land is dry, and the ridges not laid up ſo high as in ſome other places, the land is to be left rough by being but lightly harrowed, or not at all, for no other cauſe but to break the fleeting haſty winds. In caſe barley is to be ſown firſt after a fallow, the land ſhould lie over the Winter that the froſt may the better temper it by ſeed-time, when it is to be ploughed again; if for peaſe or beans, once fallowing Winter will do: but on light, poor, or cold, and ſour land, that has a turf upon it, or coarſe ſweard, the beſt way is to *denſhire* or *burn-beat* it the Summer before it is to be ſown, being the more expeditious as well as moſt advantageous way; it not only ſpends the ſharp moiſture, but kills the weeds, and immediately brings the land to a lively fine temper, every way fit for vegetation.

Secondly, good rich mellow lands, ſuch as a black mould, or in ſhort, any other colour, that has been a long time paſture, and over-grown with moſs, prie, *&c. (which infeſts good land as well as bad)* are improved by ploughing, which is a *catholicon* for the diſorder, and will likewiſe not only prove an immediate advantage, but continue to be ſo for the future, provided not more than two or three crops are taken before it be laid down, and that it be laid down again well dunged, or ſown with St. Foin, clover, or ſome other more agreeable graſſes; if not, let the dung be laid on the year before it is laid down, that it may yield good graſs immediately

diately after the corn is off; if laid down from wheat, the ſtubble ſhould not be cut; for it helps to bring it not only ſooner to a ſweard, but alſo improves the land. The land ſhould be laid in height as it is inclinable to drought or moiſture. New broken-up land, if not too rich, may be ſown with peaſe the firſt year; this ſaves one ploughing, but it is generally ſown with oats, which requires but one ploughing to get a crop; but the ſowing of peaſe much retards the weeds, and better prepares the ground for other grain.

Thirdly, as for the more poor and barren land, the beſt and ſpeedieſt way to bring it to tillage, if it has a ſweard either of ſour graſs, *ruſhes*, *weeds*, *heath*, *goſs*, *fern*, *or broom*, whereby an ill juice has been contracted, injurious to vegetation, is to Denſhire or burn-bake it, with this caution, that it be not too often ſown, ſo as to draw the heart of the land out; for by being ſo treated, it will be ſeveral years before it gains a good ſweard; neither ſhould the ſoil, produced from the ſtraw, be ſpent on other lands, which piece of occaſional CLOWN-CRAFT brings an ill name on this moſt noble branch of improvement; whereas if the land was ſoild well, and laid for paſture after two or three crops, it would ſoon ſweard, and yield excellent ſweet graſs, or otherwiſe may be laid down with the artificial ſort, which will ſtand till the natural graſs thruſts them out.

TILLER

TILLER *or* TILLAR,

A little young tree left ſtanding, on felling others about it.

TOLL,

A cuſtomary acknowledgment paid for buying and ſelling within the bounds of a certain manor, and ſometimes for a paſſage through it: which Tolls moſt of them are pleaded by preſcription. It alſo ſignifies corn taken for grinding at a mill.

TRANSPLANTING *Foreſt-trees.*

On tranſplanting theſe ſort of trees, the roots are to be ſpared, and eſpecially the earth that ſticks to the ſmalleſt fibres; and theſe likewiſe are not to be cut, as is the too common way, for they are the very mouths that ſuck in the nouriſhment, and transfuſe it to the whole tree. The pits and foſſes into which trees are to be tranſplanted, ſhould for ſome time be left open to the rain, froſt and ſun, to diſſolve the united, and too compact ſalt, and to render the earth more friable, which better qualifies it for nouriſhing the trees planted in it; and to make it more replete with vegetation, ſome ſtraw, *&c.* may be burnt in the pits, *&c.* wherein they are to be planted, drenching the mould with water in an over dry ſeaſon; and on poor land it is proper to enrich it with proper manure. (*Vide Nurſery.*) Tranſplant thoſe that diſagree moſt with their preſent ſituation, and copſe them in a more agreeable ſoil.

In

On tranſplanting, the diſtances are to be proportioned to the breadth and length of the *walk* and *avenue* in which they are to ſtand, and ſuch as are more inclinable to ſpread than riſe, as the oak, beech, walnut, *&c.* which are to be diſpoſed of at greater diſtances; but then the quality of the ſoil is to be regarded. Thoſe trees that affect cold and moiſt ſoils, if planted on a hot and dry ſoil, may be diſpoſed of in a cloſer order, but trees that like dry grounds, plant at a ſtraiter diſtance; the ſituation is alſo to be conſidered, and whether they are ſubjected to the boiſterous winds or not.

And for the better preſervation and ſtability of tranſplanted trees, againſt winds and cattle, thoſe that are diſpoſed of in copſes, and large woods and groves, their mounds and cloſe order are a ſufficient defence for them, but when planted in ſingle rows, they are to be defended ſomething after the following manner. Erect three ſmall poſts at about a foot and half diſtance from each other; if they are of ſawed ſtuff, they need not be more than three inches ſquare, otherwiſe poles will ſerve the purpoſe, or any other tolerable ſtraight ſtuff, and if large enough, may be cleft to a proper ſize, which are to ſtand about five feet above the ſurface. After they are drove into the ground, a croſs bar is to be nailed from one to the other, within four or five inches of the top of the poſts, to which bar a pale or two is to be nailed betwixt each two poſts, and the lower end drove into

into the ground, or nailed to the like croſs-bar, within ten or twelve inches of the bottom of the poſts. The fixing of the poſts in a triangular form has the following advantage, provided they are ſet ſo as the weſt wind may drive the tree into the extremity of the angle towards the eaſt, for our moſt boiſterous winds come from the weſt; ſo that placing the poſts in this manner, gives the tree more liberty to bow and bend without galling, than if the croſs-bar was oppoſite to that ſide; beſides, the trees may be tied to a ſtake for a year or two, or ſome flag or ſegg tied round the tree at the height of the pales, will alſo prevent their galling; whereas if they were collared with hay or ſtraw, the cattle would be apt to pull it off: this method is more chargeable than tumping, but much more durable and better, and is abſolutely neceſſary where deer, rabbets, *&c.* bark the trees, that are planted on ſuch land that is ſtocked with ſuch creatures, or where they come to feed. When trees are planted on ſuch ground where great cattle do not come, the beſt way to eſtabliſh and fix them, is to get three long poles to each tree, and ſet them in form of a triangle at about ten feet from the bottom, and to bring the tops of the poles to the collar, and bind them faſt to it with hay-bands; by being ſo ordered, they cannot ſtir.

The moſt difficult taſk on tranſplanting is, that of large grown trees, which is ſometimes neceſſary to ſupply a defect in a walk, avenue, *&c.*

to perform this, pitch upon thoſe trees that are in a thriving and flouriſhing condition, and lay the root bare, and cut through all the collateral parts of them, 'till with a tolerable ſtrength, the tree can be forced down on one ſide, ſo as to come at the top or downright ſtraight root which is to be cut through, and then the tree is to be raiſed into its former poſition, and fixed to ſome ſtrong poles to keep it in its place, where it is to ſtand a year or two with the mould laid cloſe to it that was taken from it in the operation; after it has taken freſh root, and at a proper ſeaſon, it is to be removed into the place it is deſigned for. To aſſiſt the removal of ſuch trees, a little before the hard froſts come, trench about the tree at ſuch a diſtance from the ſtem as is thought ſufficient to comprehend the root, digging ſo deep as almoſt to undermine it, placing blocks, quarters of wood or planks, to prevent the earth from falling into the pit, and caſting in as much water as will almoſt fill the pit, afterwards throw in a ſufficient quantity of the earth firſt caſt out, and force it up to the ſtem of the tree. Let it ſtand till a hard froſt comes and binds it firmly to the roots, and then convey it to its new ſtation, which may be prevented from further freezing, by laying a proper quantity of warm litter to it in the pit wherein it is newly planted, and ſo cloſe the mould to the ſtraggling fibres, and then throw in the remaining mould firſt caſt out: always obſerving to

place

place that ſide to the ſouth, that ſtood to that aſpect before removal: but provided the mould frozen to the ſtem ſhould be too weighty to be raiſed by an ordinary ſtrength, and the tree otherwiſe large and weighty, a crane, ginn or pulley, is to be applied; by this means a large clod of earth may be moved with the tree, which may be laid upon a low ſtrong carriage fit for the purpoſe, and let into the new pit perpendicularly, by the help of the aforeſaid engine. By, and according to this method, trees of a very large ſize may be removed without any diſorder, and often times without diſbranching and topping them, which is of great importance, where it is practiſed to ſupply ſome particular defect.

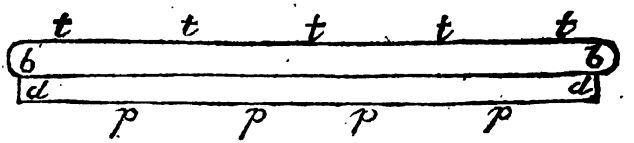
TRAVE *or rather* THRAVE,

A certain quantity or number of ſheaves of corn. In moſt places, it ſignifies twenty-four ſheaves.

TREES *ſet in* HEDGES.

The beſt method of planting trees in encloſed fields, is not to plant them in the mound hedge, as is the common practice, or where the hedges are already raiſed, and trees wanting. It is proper to ſet them after the following manner, not only as being moſt convenient and advantageous, and as doing leaſt damage to the hedge, but affording good ſhelter, and giving room for the greateſt number

of trees. Let *b b* be the bank that the hedge ſtands upon, and *d d* the ditch; and let the trees be planted not on the bank where the hedge ſtands, as the common way is, but at the bottom of the bank, about three feet from the hedge, which will prevent the planted trees dropping on it, as at *t t t*, and on the other ſide of the ditch, and about a yard from it not in a direct line, but in the intervals, let another row be planted as at *p p p*, and if each other of theſe trees be a riſing timber tree, and the other between a fruit tree that ſpreads, they may be planted at a cloſer order, and will afford the better ſhelter. (*Vide Planting, Nurſeries, &c.*)



TREFOIL *or* TROILET.

This graſs is alſo called three leaved graſs, and hog-clover, being in the weſt of England ſown to feed hogs or *porkers* with, and is given in the ſame manner as turnips are to ſheep. It is both finer and ſweeter than the common or great *clover*, raiſed in the ſame manner, and will grow on any ſoil whatever; it may alſo be ſown with or without corn, as ſuits beſt with conveniency, or being ſprinkled on meadow-ground, will very much improve the hay in burden and quality.

TRENCH-

TRENCHING-SPADE,

An inſtrument uſed in cutting trenches in watery clays, and mooriſh lands; as alſo for digging of peat in *turbaries*. The beſt way of making it, is with a *languet* or fin, like a knife, turned up by the ſide of the *bit* or *ſpade-iron*, and ſometimes on both ſides, as it better divides the clay and moiſt earth, and cuts the ſmall roots, ſo that all comes out clean together; therefore on ſuch grounds it is preferable to the common ſpade.

TRUGG-CORN,

Corn allowed to the vicar of *Lemſter*, for ſerving a certain chapel of eaſe within his pariſh; but in the black book of Hereford, it ſignifies two buſhels; and the word *Trugg*, in former times, was commonly uſed for that quantity.

TRUNDLE,

A ſort of carriage with low *ſlugg* wheels to draw heavy burdens on, ſuch as large trees upon removal, ſtones, *&c.*

TRUSS.

It ſignifies fifty-ſix pounds, or half a hundred weight of hay, made up in a neat and after a particular manner, and is ſold in Smithfield-market in London, by the name of *Truſs*.

TUMPING,

Is a particular way of planting trees in *parks, fields, &c.* the tree is ſet in the place deſigned for it almoſt on the ſurface of the ground, and no deeper than to make it ſtand; but it is neceſſary to ſet it ſo that all the roots be juſt covered, or not till the tump or mould is raiſed about it: this being done, one end of a line is to be tied ſlackly about the tree, ſo that in paſſing round about it with the line ſtrained, it may ſlip about the tree as the operator *circumfrents* it, at about three, or three feet and a half, or leſs, at pleaſure to it, is to be faſtened an iron ſetter, or ſharp pointed ſtick, and as the operator goes round the tree, the ground is to be marked: then a ditch is to be cut on the outſide of the round ſcore, and the turf laid handſomely on two or three hights on the inſide the ditch, with the graſs outwards, till the work is eighteen or twenty inches high: the mould is to be caſt out of the ditch, and the beſt of it to be throwed to the roots of the tree, till it be raiſed within the turf as high as the outſide. Then ſet the bank round with ſome ſtrong dead *black-thorns*, and afterwards a proper quantity of faſt heavy earth is to be laid cloſe to them, treading it up cloſe, the better to fix and faſten them; the earth is alſo to be laid ſloping down from the turf towards the tree, and that part next to the tree is to be loweſt, that the rain may ſoak to the roots. It is alſo proper to lay ſome ſmall thorns, *&c.* on the top

top of the tump when finiſhed, and to repair it as occaſion requires.

TURBARY,

Is a right to dig turfs in another man's land. *Common of Turbary*, is a liberty which ſome tenants have by preſcription to dig on the *Lord*'s waſte. (*Vide Leaſe and Covenants of Turbary.*)

TURNIPS.

There are ſeveral ſorts of Turnips, as the *round*, the *long*, otherwiſe called the *narrow*, and the yellow, all which of late years have been found to be a great improver of land, and very advantageous to the farmer: the ſucceſs is founded on numberleſs *experiments* as well as *reaſon*. They may be ſown from Midſummer to Lammas, and ſometimes have ſucceeded very well when ſown later. The land whereon they are ſown ſhould be twice ploughed, and made very fine by harrowing, before the *ſeed* is ſown; after which, it ſhould be harrowed in with a harrow drawn or lined with *thorns*, as a means to cloſe the *mould* to ſo ſmall a ſeed, which otherwiſe might ſpend itſelf before it could lay hold of earth to nouriſh it; *for which reaſon all ſmall graſs-ſeeds are to be treated in the ſame manner*; and to make the land lie yet more compact and cloſe, it is to be rolled with a *decagonical* roll, which is beſt. After they appear with four leaves, they are to be *boughed* or *hawed*, and ſet at about twelve inches diſtance, which is by no means to

be neglected, although it be too often thought unneceſſary; for on this depends their well bottoming; and the bottoms are better for *cattle* than the tops.

If the land be very poor, it ſubjects the Turnip to the black hopping *fly*, which is very deſtructive where it takes; therefore a ſprinkling of rotten dung, or rather ſoot (*if it can be had*) on the land upon harrowing, is not only proper, but neceſſary. The beſt time for ſowing, is juſt before or after a ſhower. But if they ſhould miſcarry, as ſometimes they will, the farmer is not to be diſcouraged, but ſow again, for the ſeed is not very dear, though valuable to the *farmer*; a pound and an half, at about *four-pence per* pound, will ſow an acre. The beſt account that Turnips turn to is, to give them to ſheep in the Winter, for they fatten them ſoon; and the beſt way of giving them, is to confine the ſheep by proper hurdles to an acre at a time, more or leſs, according to the number of ſheep to be fed, and alſo to the quantity of Turnips the farmer has: and to take off the turnip reliſh from the mutton, the laſt *fortnight*, the ſheep ſhould be turned to ſome other good feeding paſture, which will effectually do it; ſo that the mutton will not be diſcovered by the niceſt palate. The farmer ſhould not ſuffer or force the feeding ſheep to eat them up cloſe, or to clear the ground as they go; but when the feeding ſheep have eaten up the choiceſt and beſt part, turn them to freſh ones, and bring in

in ſtore ſheep to clear the ground; when it will be obſerved, that the *dung* and *urine* of the ſheep, together with the rotted refuſe of the *Turnips*, will have ſo mellowed and enriched the *ſoil*, as to make it fit for barley in the *Spring*, and alſo for a crop of *beans* or *peaſe* the following year, and with ſome other ſuperinductions, will be able perhaps to bear a crop of *wheat* the third year, with proper tilths and ploughings. Turnips are extraordinary uſeful for perfecting *winter-lamb*, for they furniſh the ewes with plenty of milk.

A pound of *Turnip-ſeed* ſown *(after Harveſt)* upon an acre of light, ſandy, or gravelly land, that is poor or worn out by over-ploughing, and where manure is wanting, (the crop of which being ploughed in when grown high) will in two months time die away and rot, and enrich the land ſo as to prove as good a manuring as twenty loads of dung or more upon an acre, and is practiſed with much ſucceſs in ſeveral parts of the kingdom, where the farmer is more obliged to induſtry to get a crop, than to the ſoil.

I would therefore adviſe all farmers, for their own intereſt, to propagate *graſs-ſeeds*, *Turnips*, *buck-wheat*, *&c.* in a regular method, by ſometimes Summer-eating, and at other times mowing them according to their different natures and qualities; not forgetting ſometimes to plough in a whole crop when in its full pride and bloſſom; and he will quickly find the great advantage thereof by adding a richneſs to his land, or rather ſeeing it *enrich itſelf*,

itſelf, and this method (*as I have in another place obſerved*) is highly profitable and beneficial, where dung and compoſt are hard to become at, or are to be fetched at a great diſtance.

N. B. A great many attempts have been made to prevent the fly taking of Turnips; but all as yet have proved abortive: ſome have propoſed ſteeping the ſeeds in ſome menſtruum; which can never anſwer, for hereby vegetation muſt be deſtroyed, if not, the Turnip is ſtill the ſame thing, and therefore ſubject to the ſame diſorders as before.

TWI-FALLOW, *&c.*

To Twi-fallow ground, is to till or plough it a ſecond time, and tri-fallow, is to till or plough the third time, and tri, or third earing, is to crop land the third time before it has had a lay or fallow.

TWITCH-GRASS, or *Quitch-Graſs*,

Is a weed very hurtful to ſuch land that is infeſted by it; as it keeps the ſoil hollow and looſe, and draws away the juices that propagates vegetation, to the great prejudice of the *corn* and *grain* ſowed thereon; and which ſhews the ground to be of a cold ſour quality: the beſt remedy for this diſorder, is good fallowing in dry weather, ploughing the land firſt one way, and then another, called croſs-ploughing, and harrowing it with loaded harrows between each time; as alſo to manure it well with *dung*, *lime*, *chalk*, *aſhes*, *&c.* Burn-beating this ſort of land is an effectual remedy.

V.

V.

VEAL-MONEY, or *Veal-noble Money.*

An yearly rent paid by the tenants of one of the tithings within the manor of Bradford in Wiltſhire, to their Lord, the Duke of Bolton, inſtead of a certain quantity of *Veal* formerly paid in kind.

VELLING,

Ploughing by the turf, or juſt ploughing the turf, and going no deeper. A term uſed by *huſbandmen* in the weſt of England.

VETCHES, FETCHES, or FITCHES,

A ſort of *pulſe*, of which there are ſeveral ſorts; but the *Winter* and *Summer Vetches* are the principal; the one being ſown before *Winter*, will bear the extremity of all weather: the other being not ſo hardy, is ſown in the *Spring*; they are very good fodder for cattle, either given in ſtraw or without it, and is the beſt of food for *pigeons*, and are propagated in the ſame manner as *peaſe*.

U.

UNDER-WOOD,

Is that ſort of wood that is not counted timber, coppice-wood. (*Vide Coppices, &c.*)

UNTRIED-EARTH,

That earth which is warm, mellow, and rich, and which lies next the ſurface after the turf is pared

pared off, ſix or ſeven inches deep, in ſuch places where the plough or ſpade has never diſturbed the ſoil.

UP-LAND,

Is ſuch ground as lies high, and is oppoſed to ſuch as is *mooriſh*, *marſhy*, or *low*; or paſture-land that lies ſo high as not to be overflowed by rivers and land-floods. *Up-lands* are thoſe lying on the tops or ſides of hills, or other riſing grounds, conſiſting either of *chalk*, *gravel*, *ſand*, *rock*, or *ſtone*, or elſe of clay, hazelly *loam*, or *black-mould*, which are moſt proper either for *grazing*, or for *corn*, according as they lie dry or moiſt, which depends much, if not altogether, upon their ſituation and quality. Thoſe lands that lie flat on the tops of hills are generally the drieſt, and thoſe on the ſides more moiſt, occaſioned by the water continually iſſuing out. So likewiſe chalky and clay-lands are moſt inclined to moiſture and wet, in Winter more eſpecially, becauſe they retain the moiſture a long time, and in Winter the ſun has not ſtrength to exhale it. And theſe ſort of lands have alſo the inconveniencies of the ſandy, gravelly, rocky, and ſtony lands, *viz.* to chap in the Summer, to burn in hot weather, and to poach in the Winter. Therefore the black mould and ſome of the hazelly loams are the beſt for graſs and corn, becauſe they neither chap, burn, nor poach.

URINE.

URINE.

The Urine of beaſts ſhould be preſerved as well as their dung: therefore all farmers yards ſhould be ſo laid as to retain it, and not be laid with any deſcent ſo as to let the Urine run off: for there is nothing that encreaſes the ſtrength of manure, or helps the fermentation of dung ſo much, and in ſo high a degree as Urine; it is commended as a very great improver of land, and our good friends, the Dutch, are as careful in preſerving the Urine of their beaſts, as they be in preſerving their dung.

URRY,

Is a kind of black or blue clay, commonly dug out of the coal-mines, and generally is the ſtratum next above the coal: this laid on meadow and paſture, makes a very great improvement, and is very proper for hot or warm grounds.

W.

WASTE *and* WASTE-LAND.

Waſte, in a *law ſenſe*, is the ſpoil or decay of houſes, woods, lands, *&c.* committed, made, or occaſioned by the tenant, whether for life, or years, to the prejudice of the heir, or other perſon in reverſion; and Waſte-land, or ground, are thoſe lands which are not in a man's poſſeſſion, but lie in common; and ſo called, becauſe the Lord of the

the manor cannot make ſo much profit of them, as of his other lands, by reaſon that others have the uſe and liberty of paſſing and repaſſing upon them: and yet no one may build upon ſuch lands without the Lord's licence, or cut down trees, dig, &c.

WATER *to convey.*

I ſhall not go about to give *mathematical* or *mechanical* demonſtrations concerning conveying of Water, but ſhall only ſhew how it may be *ſimply* and *abſtractedly* performed without charge of inſtruments and the knowledge of them; as it is not ſuppoſed that every ſteward underſtands the uſe and application of ſuch inſtruments (*but if they do, they will be as capable of executing their office*) but to thoſe that do, I do not write; and yet to ſuch, the following plain inſtructions may not be altogether unſerviceable; I have abſtracted moſt of them from Mr. Henry Wilſon's Appendix to to his Surveying; which is ſo familiarly done, that were I to inſert my own method, or that made uſe of by ſome others, I ſhould not be more eaſily underſtood by thoſe of *narrow* capacities, nor in the leaſt benefit thoſe who have had a mathematical education.

To know whether it is poſſible to convey Water by an open rivulet, and to perform it, if practicable.

" To effect this, take two boards of about two " feet over, or thereabouts, of what form or ſhape " is not material, the larger the better; about the " middle

" middle of each of which boards bore a hole,
" into which put the ends of two ſticks, ſetting
" them up in thoſe holes perpendicularly: the ſticks
" muſt be exactly of one length, and have at the
" tops of each of them marks of white paper, or
" the like; and the ſticks muſt be of ſuch length,
" that when the two boards with the ſticks in
" them are floating upon the Water, the marks of
" paper at the tops of them may be ſeen at a com-
" petent diſtance from the pond. The two ſticks
" being ſeated in the Water, and in a right-line
" (as near as you can gueſs) towards the place to
" which the Water is to be conveyed; then at as
" great a diſtance as you can conveniently, erect
" a third ſtick upon the land, ſetting a mark
" thereupon in an erect level with the two former,
" which are in the Water, removing the marks that
" are either upon thoſe in the Water, or that upon
" the land, which you laſt erected, higher or lower
" (as occaſion offers itſelf) till you have brought
" them all three to a right level: then taking exact
" notice how high the marks are above the top
" or ſurface of the Water, go on with a *fourth*,
" *fifth*, or *ſixth*, *&c.* ſtaff, ſo long as you go in a
" right-line; for having placed two marks in an
" exact level, it is eaſy to find as many more as
" you pleaſe: and when you are to alter your courſe,
" that is, you are to vary from a ſtrait line, *you*
" *are to proceed as at the firſt, or any common level*
" *will do*, and then proceed in all reſpects as before
" directed: and according as you find the ground
" at the place to which the Water is to be con-
" veyed,

" veyed, either higher or lower than at the pond;
" you may determine the poſſibility or impoſſibi-
" lity of its being conveyed thither."

How to try whether Water may be conveyed from a ſpring, or head, to a deſigned place, though at a conſiderable diſtance.

" At the ſpring-head begin to make a little
" trench, about three or four pole long, towards
" the place to which the Water is to be conveyed;
" whether this trench be ſtrait or crooked is not
" material in this caſe. Then let ſo much Water
" run as will only fill the trench, letting none run
" over at either end of the trench; but when
" either end is full up to the brink, then ſtop the
" courſe of the Water. Now, if you find the
" trench dry, or ſhallower of Water at that end
" which is next the head, than in that end fartheſt
" from the head, it declares the ground to be
" falling. Then do the like for three or four
" poles further, ſtill making the Water to follow
" you. And having filled the trench, ſo that the
" Water may ſtand level at both ends thereof,
" then at both ends erect two ſtaves of about four
" feet long, at each end of the trench, being both
" of equal height from the ſurface of the Water:
" This done, go on in the ſame line about ten or
" twelve pole farther, where ſet up a third mark,
" ſo that you ſtand behind it, and looking to the
" middle-moſt mark, you ſee all the tops or all
" the bottoms, according to which you meaſured

" your

"your equal heights, may all agree. And then "if that ſtick, which is below the mark, be longer "than the other two, it ſhews a deſcent; but if "it be ſhorter, it ſhews the ground is higher: but "if any riſing place of ground be in the way, "you may eaſily find the height of its riſe by "ſetting up a ſtick, and meaſuring it as before is "ſhewed."

WATERING *of* MEADOWS.

There are ſeveral ways of performing this uſeful work, and there is alſo ſome *impediment* to it. It may be performed either naturally by the overflowing of rivers (*during land-floods*) over their banks, into ſuch meadows as lie flat, on which the water is apt to ſtand, which ſometimes by long continuance may prove hurtful, but not equal to the benefit in general. Meadows may likewiſe be over-flowed artificially, either by diverting of *ſtreams* or *rivers*, or ſome part of them, from and out of their natural courſe, for the over-flowing, drowning, or watering of ſuch meadows as lie near little ſtreams or rivulets; or otherwiſe by raiſing the waters by proper engines and proper machines, as the *Perſian-wheel*, *&c.* This noble machine might be of very great benefit to the nation, provided the ſeveral obſtructions that hinder its profitable improvement, by diverſions of rivers, *&c.* were removed.

Now theſe impediments proceed from the diverſity and difference of intereſt that are in lands bordering upon rivers, *&c.* For as the *water* can-

not be brought over ſeveral quantities of land for the purpoſe of improvement, but through the lands belonging very often to ignorant and prejudiced perſons, who perhaps will not give their conſent, although to their own advantage, but upon unreaſonable terms, and (*perhaps*) ſome others not at all, while others (*as tenants, &c.*) have it not in their power to give conſent to others. *Secondly*, mills ſtanding on a number of fruitful and improving ſtreams, prevent the more ingenious farmers receiving the benefit and advantage of ſuch ſtreams and rivers, which carry in their bowels ſo great riches to the *ſeas*, and the mills not yielding a *tenth* part of the profit to their owners, when *corn* may be as well *ground* by the wind, and the water improved to a greater advantage; beſides the dead weight they are of by preventing rivers becoming navigable, which ought to be encouraged in the higheſt ſenſe. And, *Thirdly*, The ignorance of too many country farmers, is alſo an obſtruction in this great improvement, who are not of capacity enough to apprehend the advantage or the cauſe of it; but that ſome certain farmers have overflowed their lands for a time, and being little the better for it, they will therefore perhaps think much to be at an expence for ſo little purpoſe, or perhaps, they are of an opinion, that the *water* leaves all its riches on the ground it firſt flows over, and conſequently does not improve the next; which is a falſe notion: for I have obſerved, that in Berk and Wiltſhire,

ſhire, that lands over flown by the river Kennet, for ſome miles together, with almoſt an equal improvement, and with the ſame diverted, *&c.* ſtream, notwithſtanding this is one of the moſt *cryſtal* and cleareſt ſtreams in the kingdom; ſo that it is evident that even pure and clear water has a fertilizing quality in it, although ſome may advance the contrary; but it is certain, that thoſe rivers whoſe waters are more thick and muddy, and likewiſe freſhes, may improve more; not but that I have obſerved, that very great improvements have been made by the former, ſo that land not otherwiſe worth above ſixteen or ſeventeen ſhillings an acre, is by this tranſparent ſtream improved to forty ſhillings an acre; which ſhould put all *Lords* and their ſtewards and agents upon this noble improvement. And, laſtly, ſuch is the greedy and covetous principle of ſome avaricious farmers, that they ſuffer the graſs to grow, or rather ſtand ſo long on ſuch grounds till it is grown hawny, and become ſo diſcoloured, that it is not ſo palatable or wholeſome as that on unwatered land, which often brings an ill name on the hay; whereas if ſuch land was laid early, it might be mown twice, which would be much better, and the hay as good as that growing on other land.

In overflowing lands from ſtreams, rivers, *&c.* it ſometimes happens, that they may lie low enough to be overflowed and compleatly watered and improved without the wheel or other mechanic engine; for as Mr. Wilſon rightly obſerves, that it

is impracticable to overflow any of the land that confines the river Lee, by the water of the ſaid river; yet the *New River*, although taken out of the river Lee, and confined more horizontally, and to an eaſier deſcent, its ſurface lies not only much above that of the river Lee, but above the land by which the river Lee is bounded, when at a conſiderable diſtance from Ware; ſo that it might be capable of overflowing the ſaid grounds: ſo that when land lies near ſome river that has in it a conſiderable fall or deſcent, then although that part of the river that lies neareſt the land to be overflown, whoſe ſurface is ſo far below the ſurface of the land, that it cannot be conveyed directly from that part of the land, yet by going higher up the river, eſpecially above a *fall* (*if there be one*) in the river, it is poſſible that water may be conveyed from thence by an eaſy deſcent to the higheſt part of the land intended to be overflown; but as I ſaid before, this depends upon the humour of your neighbour, that lies between the *fall*, or *ſtank*, and yourſelf.

N. B. *Four inches and an half deſcent will do* (*although five inches may be better*) *to convey water a mile.*

WATER *to cleanſe, and ſoften.*

Make a trench three or four perches long (but, *five or ſix better*) of a foot and a half, or two feet deep *more or leſs*, and of ſuch a breadth as will be found ſufficient for the quantity of water to be

be cleanſed, or more properly according to the ſwiftneſs of the ſtream; fill this trench about a foot thick at bottom with the rubbiſh of chalk, or where that is wanting, chippings of free-ſtone will ſupply the place, either of which are to be broke to about the ſize of an egg; then fill it *three* or *four* inches higher with *pebbles* or *flints*, and afterwards quite to the top with gravel, which is beſt, although earth may do; over which lay *turf*, and it is done; and the water by running or rather draining through this compoſition, will become quite cleanſed and purified if foul, and ſoftened if hard, as ſpring-water ſometimes is, that it will be fit for *waſhing* and *brewing*, *&c.* when ſoft water is required. It is proper to ſoften water that runs into a fiſh-pond that lies near the ſpring-head, *&c.*

WATER-MEASURE.

Sea-coal in the *pool*, ſalt, *&c.* are meaſured by the corn-buſhel, and are afterwards heaped; otherwiſe five ſtrike or even pecks are allowed by cuſtom to the buſhel; but *Water-meaſure* is ſuch, as generally exceeds the Wincheſter buſhel, by about three buſhels in a quarter.

WATER-POOLS *for cattle.*

The beſt way to make theſe on *hills*, *downs*, *&c.* is to lay a bed of clay five or ſix inches thick, and after this is well rammed, trod, *&c.* another *ſtratum* of clay of the ſame thickneſs as the former is to be laid, being firſt tempered very high,

which is alſo to be well rammed and trodden, after which it is to be well ſet with flints, pebbles, as other pitching or paving materials; which preſerves the clay from the treading of cattle, and alſo from the choppings of the ſun and wind, for great care is to be taken that it does not chop, for if it does, it is difficult and hard to make the pond hold till all is repeated again.

N. B. *Where clay is not to be had, chalk will ſupply the place; but only this is to be laid eighteen or twenty inches thick.*

WATTLES,

Spleeted grates or hurdles, or folds, pens, *&c.* for ſheep or other cattle; and the dewlaps hanging under a hog's jaw are called Wattles, or jewels.

WEIGHTS.

There are two ſorts made uſe of in England, *&c. viz. Avoirdupoize* and *Troy-weight.* Avoirdupoize weight has ſixteen ounces to the pound, by which are weighed *butter, cheeſe, fleſh, grocery wares,* and every other thing ſubject to waſte, or that contains any refuſe or waſte: and in a *law ſenſe,* it ſignifies ſuch merchandizes as are weighed by this weight, and not by *Troy,* which contains only twelve ounces to the pound; but then the *Troy* ounce is larger than the Avoirdupoize ounce, for twelve ounces Troy are equal to about fourteen ounces Avoirdupoize. This weight is made

uſe

uſe of in weighing *pearl*, precious *ſtones*, *electuaries*, and *drugs* of ſome ſorts; as alſo *gold*, *ſilver*, and formerly *bread* was weigh'd by this ſort of weight.

WELD.

This rich commodity is alſo called *Dyers-weed*, and grows wild in ſome parts of the kingdom; but it is propagated in Kent, and will grow on any ordinary, barren ſort of land, provided it is dry and warm: it may be ſown with a caſt on *barley* or *oats*, after they are ſown and harrowed, or rather before harrowing; ſo that the two ſeeds may be harrowed together, or if ſown after harrowing, this is to have a buſh drawn over it. The ſeed being ſmall, a gallon will ſow an acre; but it is beſt to mix ſomething with it in ſowing, becauſe of the ſmallneſs of the ſeed. It will not grow much the firſt Summer, but when the corn is cut and carried, the land is to be made ſeveral, and the next Summer the crop will come to perfection, when it is to be gathered with a great deal of care, and that before it is over ripe, that it may not ſhed its ſeed; and yet not before it is pretty ripe, otherwiſe the ſtalk and ſeed will be ſpoiled. It is to be pulled and bound up in ſmall handfuls, and ſet to dry as flax, and then carefully houſed. The ſeed which is valuable, is to be beat out, and the ſtalk and root ſold to the Dyer, which is of a peculiar property in *dying* of the *yellow* and *lemon* colour.

WELL.

A *ſhaft* ſunk in the earth to attract and hold Spring-water, or other water lodging in the bowels of the earth.

On ſome ſorts of ground, it is very dangerous ſinking them, eſpecially through a *ſand* and *gravel*, ſuch ground being pory, and not compact and ſolid, but apt to *cope* and fall in; and it is not uncommon to hear of perſons loſing their lives in ſuch attempts and undertakings.

In order therefore to render the ſinking of Wells on ſuch unſolid ground, as ſafe as on the more compact and firm grounds, as *clays*, *&c.* I ſhall give the following method, as practiſed by one of the moſt ingenious mechanics in Northampton-ſhire, and to which I have been more than *once* an eye-witneſs. Firſt, the ground is opened on the ſurface to ſuch a circumference as the lower part or ciſtern of the well is intended to be of, as this ſhould be conſiderably wider or larger than the ſhaft, that it may hold and contain the greater quantity of water. This being done, the ground is ſunk to the depth of *eight* or *nine* feet, or to ſuch a depth that does not endanger its falling in. When a large, ſtrong, green elm frame or kerb made of four pieces, well and ſtrongly jointed, is to be laid round the circumference aforeſaid, and at the top of the ground another of any ſort of wood, for this is only temporary; but it is to be tole-

tolerably ſtrong. This being done, a proper quantity of ſtrong *ſlabs*, ſomething longer than the diſtance between the two *kerbs*; one end of which *ſlabs* or *planks* are to be placed behind the lower *kerb*, and ſtrongly pegged, or otherwiſe made very faſt to the upper *kerb*, ſo that the *ſhaft* be lined with theſe *ſlabs* or *planks*: then the *workmen* begin walling on the lower *kerb*, till they raiſe their work *three* feet high; this done, they dig a foot or two lower, then with a *mattoc* or *pick-ax* undermine the kerb, and the weight lying upon it, will ſink it; this done, the workmen raiſe the walling as before, which done, ſink again, and ſo proceed by ſinking the bottom, and raiſing the wall, till the whole is compleated: always obſerving, as the Well ſinks, to draw the *ſhaft* in narrower, and lay ſome of the *earth* dug from the bottom between the walling, and the ſolid ground to fill up the vacuity, preſſing it in cloſe: by this method, a ſafe foundation is laid, and a Well may be ſunk a *foot* or *two* deeper by having the bottom laid in this manner, than when a looſe foundation is to be laid after water is found: ſo that if the *windlas*, and all tackle be good, the workmen are as ſafe, as if they were laying a floor, *&c.*

WHEAT.

There is no other *grain* in England, nor in Europe, ſo univerſally uſeful and neceſſary as *Wheat*, of which there are divers ſorts, as *red ſtraw Wheat*, *white ſtraw Wheat*, *Pollard-wheat*, white and red, great

great and ſmall *Rivet-wheat*, white and red; *Turkey-wheat*, *Grey-wheat*, *Parkey-wheat*, *Lammas-wheat*, alſo called *Flaxen-wheat*, *Orgrave-wheat*, *Saracens-wheat*, and *Typh-wheat*, which is very much like *rye*. There is alſo *Chiltern-wheat*; but this is called ſo from the ſoil it grows on, *viz.* on the chiltern lands in the counties of Bucks and Hertfordſhire. Theſe ſorts of *Wheat* are not equally proper for all ſorts of land, therefore a *farmer* ſhould well underſtand what ſort of *grain* agrees beſt with each ſort of land, for a right underſtanding of this, conduces much to his profit and advantage. The great *Pollard* takes delight in ſtiff lands, and ſo does the *Orgrave*. The *Lammas*, red or white, delights in indifferent, and *Saracens-wheat* on any land, and it is a common ſaying, that *Bearded-wheat* is not affected by mildew, being defended from it by its beard or *awns*. Wheat is moſt commonly ſown in September and October, and has been ſown in November, and ſucceeded very well; but I know a Gentleman that ſowed a great many acres of Wheat in March, and the conſequence was, that he had as good a *crop* as his neighbours who ſowed in Autumn; and it is ſaid that it proves beſt, ſown in *wet* weather, or rather in the *dirt*. Wheat is ſown in incloſed, as well as on *champion* grounds; but it is ſaid, that that ſown in *incloſures* is more ſubject to *mildew* and the *blaſt*, than that on *champions*, thoſe lying more under the wind, and conſequently lie more moiſt than the other; but I have obſerved, that

cham-

champions have alſo been affected by *mildews* and the *blaſt*; ſo that it appears, incloſures cannot be the occaſion of this diſorder; and I think the occaſion of this diſorder is now pretty well diſcovered, for which the world is indebted to a worthy Gentleman of the kingdom of Ireland. His diſcovery and manner of prevention was printed in the *Gentleman's Magazine* for October, 1759, and for the good of the public, I ſhall inſert *verbatim*.

" It is agreed on all hands, that the greateſt " misfortune which can poſſibly happen to a crop " of wheat, is that of its turning black or ſmutty, " and as the real cauſe of ſuch blackneſs (I fear) " has not been found out, the remedy againſt it " hath not been generally and conſtantly made " uſe of——The cauſe aſſigned by all, or moſt " of the writers on agriculture, is, that at certain " ſeaſons a denſe glutinous vapour deſcends, be- " tween the ſetting and riſing of the ſun, upon " the ears of corn, and ſo binds up the valves " (commonly called the chaff) in which the grow- " ing corn is inveloped, that vegetation is there " obſtructed; becauſe on ſuch circumſtances, it " cannot imbibe thoſe nitrous particles of the air, " which tend to its maturation, and of conſe- " quence it becomes a mere rotten heap of pu- " trefaction. From this method of reaſoning, we " obſerve the Engliſh farmers frequently in a " Summer's morning hauling a rope extended by " two perſons along and through their corn-fields, " to ſhake off this condenſed air or dew; but I

" humbly

" humbly apprehend, from the following reaſons, " that they are much miſtaken as to the real cauſe " of that diſtemper.

" It being a difficult matter, ſome time ago, to " procure clean good ſeed wheat, in that part of " the country where I occupy a farm, I prevailed " upon a friend to obtain for me three barrels of " the red Lammas wheat from England; when " I had it home, it carried the appearance of as " fine grain, and as clean and clear of dirt and " ſmut, as ever ſprung from the earth; but upon " caſting a few buſhels of it into my veſſel of " pickle, I found that at leaſt a ſixth part ſwam " at top, and, notwithſtanding the frequent ſtir- " ring of it, I could not force it to ſubſide; there- " upon I ſkimmed it off, but to my great aſto- " niſhment, it had the appearance of as plump and " round grain as that which fell to the bottom; " I ſpread it upon a table, and examined it more " minutely, and could not perceive the leaſt de- " fect in it, but upon opening it with my pen- " knife, I found it was concaved, or made hol- " low on the one ſide of the grain, and not in " the centre, which I apprehend was occaſioned " by ſome animalcula imperceptible to the naked " eye; whereupon, for experiment's ſake, I ſow- " ed the whole of what I ſo ſkimmed off, on one " part of my fallows by itſelf, and ſowed what " ſubſided on another part, and the conſequence " of that experiment was, that the greateſt part " of that ſwimming corn at the enſuing ſeaſon,

" pro-

" produced a ſmutty crop, and I had not a ſingle " ſmutty head on that part of the field where " the ſubſiding corn was ſowed: but not being " ſatisfied with what then appeared, I examined " more ſtrictly that ſmutty crop, and I found not " only there, but in my neighbour's fields, which " I alſo examined, that where two or more ſta- " mina or ſtalks were produced from one grain of " corn (which I diſcovered by tracing them down- " ward to the root) they were all ſmutty; and the " different ſound ſtamina proceeding from one and " the ſame root, were all ſound; from whence it " may be reaſonably inferred, that vegetation is " principally produced, and plants are ſuſtained " and grow, by the roots or fibres collecting their " nutritive juices from the moiſt earth, which are " carried up through the perpendicular tubes by " the power of attraction, but by the loſs of one " part of the grain ſo maimed, and conſequently " by a proportional deficiency in the roots or fi- " bres (which are ſo many mouths to collect nou- " riſhment for the ſtamma or new grain) they ex- " tract only ſo much ſtrength as to throw out the " ſtalks and heads, but cannot collect ſufficient " nutriment to compleat, or maturate the diffe- " rent ears of corn; and it may likewiſe be rea- " ſonably ſuppoſed, that thoſe animalcula which " took up their lodgment in the ſingle grain, are " in vegetation communicated upwards through " the tube of the ſtamen to the head of the corn, " where they are collected and multiplied into an

" heap

" heap of black corrupted matter; as a proof of " which, every ſingle ſmutty head, upon a nice " ſurvey, is found to abound with little living " creatures.

" This I take to be a more rational hypothe- " ſis; for if ſuch ſmuttineſs were produced from " the air, it is to be preſumed, that it would par- " tially ſtrike thoſe heads only which grow from " one root, when promiſcuouſly interſperſed with " heads proceeding from other roots? Wherefore " I apprehend it may juſtly be recommended to " all good huſbandmen, to be careful in making " a ſtrong pickle for their ſeed wheat, and to " ſkim off, and caſt away all the corn which floats, " as a ſure means of preſerving it from ſmut; " but let them be cautious not to let it ſtand too " long in their pickling-tubs before the ſwimming " corn be taken off, for if it is permitted to ſtand " long, thoſe hollow or concaved grains will ſoon " imbibe the water, and ſubſide with the ſound " corn; and as I have gone ſo far, I will alſo " give you the pickling receipt underneath, in " hopes it may be of utility to the public, which " is the principal motive of this trouble given to " you by, Sir,

Yours, H. CARMICHAEL."

Saw-Mount, near Dungarvan, Ireland, Sept. 28, 1759.

The RECEIPT.——" Take as much dunghill, " or rotten water which diſtils from a dunghill,

" as

" as will make your quantity of corn ſwim; put " therein as much ſalt, with a pound of pulve- " rized nitre, commonly called ſalt-petre, or, in " lieu thereof, two pounds of copperas, as will " cauſe it to bear an egg; ſteep your corn twelve " hours, after having ſkimmed off the light corn " as above; ſtrain it out, and dry it with ſlacked " lime, or dry turf aſhes, and ſow it, but be care- " ful to ſow it the next day, or the day follow- " ing; for if wet weather happens, and it be kept " four or five days out of ground, the corn peels " and will not grow: as the pickle decreaſes it " may be augmented, by adding more water and " ſalt, &c. until all the ſeed intended to be ſown, " is pickled."

N. B. *Dunghill-water is not always to be had, I therefore apprehend, that any other liquid ſtrongly impregnated with ſalts may do as well.*

Wheat being the tendereſt of all other grain, is the moſt difficult of all others to be kept ſweet, and according to common fame, great quantities were ſpoiled in the late dear years by thoſe *harpies*, who being not contented with the then high price, with-held it from the poor, and to their own loſs; for by keeping it up cloſe, being over fond of it; they kept it till it was rendered uſeleſs to themſelves, and their poor ſuffering brethren; if ſuch creatures can be reckoned of kin to any other but thoſe of their own tribe.

Wheat threſhed before March is not fit to be kept long (if it be not kept in ſtraw or chaff) it is therefore proper to turn it once a week.

WHITE

WHITE-THORN.

This is the moſt convenient quick to plant a hedge with, being eſteemed the moſt handſome and beſt fence, and agrees with almoſt any ſoil, ſo that a new ditch and bank be made; it has the greateſt diſlike to a dry gravel or ſand; but will often grow upon them if a wet ſeaſon enſues. It is raiſed of ſeed, and carefully nurſed after it riſes; but the ſeed lies two years in the ground before it ſprings, and after two or three years grows very faſt. *Vide Haws, &c.*

WILD-OATS.

Theſe are one of the greateſt annoyances to *huſbandry*, and one of the moſt hurtful *weeds* to the *farmer*, therefore the greateſt care and pains cannot be too much to deſtroy and root them out. Their increaſe is thought to be chiefly owing to a long and continued courſe of plowing and tillage; but ſome ſort of land is more ſubject to breed and harbour them than other; the following method if purſued (although in a regular courſe of huſbandry) is the beſt and moſt effectual method that is yet known to deſtroy them, *viz.*

After the firſt time of Summer-fallowing, as ſuppoſe in March or April, in three weeks or a month's time, and after a ſhower, harrow the fallow well over, and the wild oats will quickly be found

found to ſpring and riſe: which ſuffer to continue till they *ear*, and then mow them down, and the firſt dry day plough them all in, which will mellow and enrich the ground.

It is poſſible this firſt experiment may not effectually and totally deſtroy this *pernicious weed*, on account of wet ſeaſons, or other accidental cauſe; but this is known to be an excellent remedy, and therefore a frequent repetition will not fail of a compleat cure; but then here ariſes an objection, that the Midſummer fallow is hereby loſt, and that the land wants a ſufficient tillage for *wheat* about Michaelmas: in anſwer to this, if it will not do for wheat, it will do for barley at Spring, by the help of an Autumn or Winter ploughing; ſo that the trial need be made only on land intended for barley. Sheeping them is alſo very proper.

WILLOW, WITHY, &c.

Willow, *withy*, *ozier* and *ſallow*, are different plants, although much of the ſame ſpecies and kind. They are promiſcuouſly reckoned up thus. The *common white willow*, the *black*, and the hard *black*, the *roſe* of *Cambridge*, the black *withy*, the round long *ſallow*, the longeſt *ſallow*, the *crack-willow*, the *round eared ſhining Willow*, the *leſſer broad leaved Willow*, *ſilver ſallow*, *upright broad Willow*, *Repent broad leaved*, the *red ſtone*, the *leſſer Willow*, the *ſtraight dwarf*, the *yellow dwarf*, the *long leaved yellow ſallow*, the *creeper*, the *blacklow Willow*, the *Willow-bay*, the *ozier*, and the *hopping ſallows*.

The *Withy* ſo called, is a conſiderable large tree, proper to be planted upon high banks and ditch ſides, but within the reach of water, and alſo on the weeping and ouſing ſides of hills; they may be planted from ten to twenty feet diſtance, but grow the ſloweſt of all twiggy trees; and yet they make amends for this with a large crop; the wood is tough, and very fit for baſkets, *&c.* The two principal ſorts of theſe Willows are the hoary *(not before-mentioned)* and the red, the laſt being the tougheſt and fitteſt to bind whilſt green.

Sallows grow the faſteſt, planted within reach of water, or in a mooriſh ſoil or plain, and where the ſoil is *marſhy*, and unfit for the *plough* or *ſcythe*; where land is unfit for theſe purpoſes, it is a very great improver. Before they are planted, it is proper to turn up the ground with a ſpade, eſpecially on a flat. The common round-leaved *ſallow* proſpers beſt on drier banks. The hopping *ſallows* delight moſt in a moiſter ſoil, and on which they grow very haſtily. There is a ſort of a different colour, the twigs are reddiſh, the leaf not ſo long as the former, and of a more duſky green, and brittle in the twig, but tough when grown to a competent ſize.

The hopping ſallows are beſt, and of a clear grain, but require a moiſt ſoil; they are to be planted a foot deep, and a foot and an half above the ſurface. At three years growth, they may be cropped or cut, for the firſt year *(on a proper ſoil)* they will ſhoot from eight to twelve feet in length, and the third year they will be ſtrong enough to make rakes, *&c.* on. Some plant them at full height,

height, and others at about four years growth, but then they are not ſo uſeful, nor grow ſo faſt, and yet even then they turn to good account. They are beſt planted at about five feet diſtance, and in the *quincunx* order (*which ſee under beans.*)——The worſt *ſallows* may be ſet for ſtakes in a dead hedge, on land proper for them, and will turn to better account than ſo many *oaks*.——Of the *hopping ſallows*, at three years growth, each plant will yield about twenty ſtaves at *eight* feet long each. In a good rich ſoil, they may be planted at about eight feet diſtance.

Setlings of the firſt year may be planted, but thoſe of the ſecond year are better, and the third yet better ſtill, and the fourth not worſe. A bank to keep them from the water is more proper for them than a bogg, or to ſtand wholly in the water; and they ſhould have the mould drawn or laid to their ſtems every two years. Sallows may be propagated by plaſhing, couching down, and pegging and covering them up with mould, and alſo by cuttings: ſuch ſets are to be preferred that grow neareſt the ſtock, and are to be planted in the firſt good weather in February, and before they begin to draw ſap; but in ſome places they are planted in the latter end of December. It is beſt to cut them in February and March for fuel, but in October and November for uſe. In theſe, as in *poplar*, a twig or two twiſted a little and bent, produces ſprouts plentifully, and ſoon becomes a head. If in poachy coppices, one betwixt four or five was to be planted a water ſallow, the profit would over balance the care. Therefore in low, moiſt

woods, when trees are grubbed up by the root, truncheons of ſallow, or ſome other *aquatic*, may be thruſt in to ſupply the defect. The haſty growing ſallow is not ſo tough as that which is not ſo eager.

Oziers, or *aquatic ſallows*, are of various kinds, diſtinguiſhed from other ſallows, as theſe are from *withies*, being much ſmaller than the other ſpecies, being ſhorter lived, requiring almoſt a conſtant moiſture. However, a dryiſh rather than over wet ſoil, is to be choſen, and yet an over wet one may be mended by cutting trenches. The wood of theſe are more limber and flexible than that of the others.

Cut *oziers* or *aquatic ſallows* in the new ſhoot, for by a longer ſtanding they become more inflexible; pare them cloſe to the head, at about a foot above the ſurface, in October; but ſtaying till the Winter is pretty well over, is accounted better; but about London, they are cut in the coldeſt ſeaſons, and are planted all Winter till Candlemas, or to the middle of February. When they are cut, they are to be tied up in bundles, and ſet up in a hovel or ſome other place of ſhelter. Such as are for white work, are made up in *bolts* (as is the common name) and then are to be ſet in water on one end; but for black or unpeeled work, they may be kept under covert, or in ſome moiſt place to preſerve them freſh, and they may be ſprinkled in hot dry weather.

In England, oziers are accounted of three ſorts, one of which is worth little, being ſtiff and brittle, a good deal reſembling the before-mentioned *ſallow*. There is another ſort called *perch*, bearing limber-

limber-green twigs, and a ſlender leaf. The third ſort in quality and condition is like the ſecond, but the twigs are inclining to yellow, and it is the beſt for uſe, being tough and hardy. The names common to theſe plants, are the *hard gelſter*, the *horſe gelſter*, *whipping* or *ſhrivelled gelſter*, the *black gelſter*, the *hard*, *ſoft*, *ſharp*, *ſlender-topped yellow golſtones*, and the *fine golſtone*, the *yellow-green ſnake*, or *ſpeckled ozier*, *ſwallow-tail*, the *Spaniard*, &c. the *Flanders willow*, which grows to a large tree, and the oftener it is cut, the better. There is alſo another called the *white ſwallow*; all theſe are different ſpecies, therefore are to be planted ſeparately.

The choiceſt ſort, which is alſo the ſmalleſt, and the golden yellow and white, which are beſt for propagation and breed, are to be planted of ſlips of two or three years growth, a foot deep, and about half as much above ground as beneath, either in mooriſh grounds, banks, or furrows, in January, and to the beginning of March, at two feet ſquare, but ſome plant them like *quick-ſets*, near the water; then they are to be kept clean of *moſs*, *ſlab*, and *ooze*, and to be frequently pruned, the better to form the ſhoots ſingle, and that none grow double. They may be headed every ſecond year in October, the Autumn cutting being beſt, but in general, *willows*, *ſallows*, and *withys*, may be cut in mild weather, at any time between leaf and leaf; but the beſt time to plant and cut them is in March. It has been attempted to raiſe theſe plants of ſeeds contained in the *catkins*; but the attempt has not ſucceeded, being always choaked with weeds, and it is hard to keep them clean; but I ſhould think, if they were

ſown in drills, they might be kept clean by hand-weeding them. They ſpring up like corn in the blade, and may be mown as that is.

The *ozier* is of ſuch profit, that *twenty pounds* have been made of an acre; but about ten pounds is the common value: this is preferable to the beſt corn-land, and needs but one planting to yield a conſtant crop to future ages, and therefore by underſtanding perſons it is eſteemed, and in purchaſe valued accordingly. It is eaſily renewed where a plant fails, by thruſting in a twig next at hand, and the defect is ſoon diſcovered when they are looked over. Conſidering the vaſt quantities yearly imported from Holland, Flanders, and France, it is a wonder, *Noblemen*, *Gentlemen*, or their *ſtewards*, do not employ their moiſt and mooriſh land, eſpecially where tides in freſh rivers are regular, by planting and propagating *oziers*. Some approve of preparing the ground by trenching it a foot and half deep, and then plant it with ſets of the ſame length, and at about *ſix* feet diſtance, which is to be done in April. Theſe, if ſtrong plants, come immediately to trees, which at three years end may be cut within *two* feet of the ſurface.

Willows are of *two* ſorts; the *white* and *black*; and the white is of two ſorts, the one inclining to a yellow, and the other brown; the black is to be planted of ſtakes of three years growth, taken from the head of an old tree before it ſprouts, and to be planted about *ſix* feet above the ſurface, and from *ten* to *twenty* or more feet diſtance.——The woody ſort of *willow* delights in meadows, and on the ſides of ditches, that are rather dry than over-

wet;

wet; but the black and red proſper beſt on boggy grounds; plant them of ſtakes of *ten* or *twelve* inches round, cut as the other, and ſet them three or four feet deep in the earth, making the hole with a ſtrong ſtake and beetle, or with an iron crow; cut the truncheons ſloping at both ends, and plant the greater lower-moſt.——Caſt them into a pit of water, *two* or *three* days after they are cut of the intended length, and clear them of twigs before they are planted, which is to be done in February, and the beginning of March, and cloſe the mould well to them. If planted for a *coppice*, ſet them at about *ſix* feet diſtance, and take away all ſuckers at three years end: cut the head at half a foot from the trunk, *viz.* leave *three* or *four* of the higheſt ſhoots at that length, and cut the reſt cloſe, pare them yearly, that thoſe that are left may enjoy all the ſap, and they will be fine rods in a ſhort time.——Arms of four years growth produce ſubſtantial ſets, but they ſhould be fenced from cattle for the firſt *three* years. A willow will ſtand about five-and-twenty or thirty years; yielding a conſiderable profit to the planter, being headed every *four* or *five* years: ſome have been known to ſhoot twelve feet in one year, and when decayed, they are eaſily revived by a new plantation.

Where there is ground fit for coppices of this wood, throw it into double ditches, and every foſs three feet wide, and about two and a half deep: ſo that when the earth is caſt out of the ditch upon the ſolid ground, it will be raiſed to about four feet high, and the moiſture be below the roots, ſo that the plants will grow from the

water, than in it. Plant two tables on each ſide the ditch, and the ridges of the banks with one ſingle row along the middle, and thoſe of *four* or *five* feet high every way larger and ſtronger than the other, and at *ſix* or *ſeven* feet diſtance from each other. Weed them carefully for the two firſt years after planting, till they have over-powered the graſs, weeds, *&c.* and the third year they may be lopt at about a foot above the ſurface, and that without haggling. After the firſt cutting, let them ſtand eleven or twelve years, if for fewel, and an acre *(if good)* will yield about *eighty* loads, and for its ſweetneſs, none is preferable to it. Theſe woods are better cut in a dry ſeaſon than a wet one. They are when grown to a ſize fit for a great many uſes, ſo that in ſome parts of the kingdom, they will turn to a far better account than to burn them. The wood when putrified by a long ſtanding, ſo as to be reduced to a ſort of loamy earth, is very much coveted by the *gardener* to lay on his flower plots.

WOAD.

This being a commodity cultivated by thoſe that apply themſelves to the buſineſs, I ſhall therefore ſay no more of it; but that it delights in a very rich, ſound, and warm ſoil, and will do very well on a warm light ground that has had a long lay, and got in good heart. Being long uſed, it robs land very much, but moderately, it prepares it for *corn*, by abating its over-much fertility, and draws a different juice from that of *grain*. Land

let

let to Woad and proper for it, will yield from three to about four pounds an acre.

WOULD, *or* WOLD,

Is a large plain or down: an open champain part of a country, that is hilly and void, or clear of wood, as Stow in the Wold, and Coſt-wold in Glouceſterſhire, York-wolds, *&c.*

WOODMAN, or *Woodward*, &c.

Having under the name of *Underwoods* and *Woods*, ſufficiently treated of the duty of a *Steward* and *Woodward*, therefore in this place, I ſhall only make ſome uſeful reflections, and give ſome directions as to keeping and regiſtering the value of woods; that *Noblemen*, *Gentlemen*, *&c.* may know what can be demanded on extraordinary occaſions.

As for timber that ſtands in hedge-rows, it is neceſſary that a table be drawn to contain the name of every diſtinct *cloſe* or *field* within the manor, and then to begin at ſome particular *corner*, *gate*, &c. and count the number of trees in ſuch a field, *&c.* which ſet down, it will be proper to take the number of feet, the value *per* feet, and the value of the bark and heads, with the ſum of all in the laſt column. Then go to the next field, *&c.* till all are valued and regiſtered: but for woods, *&c.* the beſt way is to value a furlong together, placing the name of ſuch a particular part in the firſt column as before, and ſo proceed till the whole is finiſhed, a ſpecimen of which is as follows.

Names

Names of the fields in N. manor.	N°. of trees in each field.	N°. of feet in the feveral trees.	Value *per* foot.	Total value of the timber in each field.	Value of the heads in each field.	Value of the bark in each field.	Total value of each field.
			s. *d.*	*l.* *s.* *d.*	*l.* *s.* *d.*	*l.* *s.* *d.*	*l.* *s.* *d.*
—— Field	17	217	1 2	11 16 6	2 10 6	4 5 . .	18 12 . .
—— Close	20	519	1 4	34 12 . .	6 3 6	13	53 15 6
—— Hill	5	125	1 3	7 16 3	1 8 . .	3 2 6	12 16 9
—— Lays	30	876	1 3	54 15 . .	10 10 6	20	85 5 6
—— Ings	25	855	1 6	64 2 6	11 5 . .	24 5 . .	99 12 6
—— Pasture	33	901	1 2	52 11 2	7 5 . .	19 10 . .	79 6 2
Total	130	3493	. . .	225 13 5	39 2 6	84 2 6	349 8 5

An Account of the OAK *Timber-trees, and others rising to Timber, in* ——— WOOD.

Names of the furlongs.	N°. of trees in each furlong.	N°. of feet in the several trees.	Value *per* foot.		Total value of the timber in each furlong.			Value of the heads in each furlong.			Value of the bark in each furlong.			Total value of each furlong.		
			s.	*d.*	*l.*	*s.*	*d.*	*l.*	*s.*	*d.*	*l.*	*s.*	*d.*	*l.*	*s.*	*d.*
——— Furlong	30	510	1	4	29	..	..	20	10	..	16	5	..	65	15	..
——— Furlong	51	611	1	6	45	16	6	21	15	6	22	2	6	89	14	6
——— Furlong	43	615	1	3	38	8	9	28	10	6	21	..	..	87	19	3
——— Furlong	49	1015	1	2	59	4	2	25	10	..	27	..	..	111	14	2
——— Furlong	60	1000	1	4	66	13	4	24	..	..	28	5	..	118	18	4
In the fence-hedge	70	1719	1	2	100	5	6	30	5	6	43	5	6	173	16	7
Total	303	5470	.	.	339	8	3	150	11	6	157	18	..	647	17	10

All that I have to add upon this head is, that the ſteward ſhould keep a very ſtrict eye over his *Lord*'s woods and wood-keeper, and take nothing upon truſt, but ſeek to find the truth of every thing belonging to them; for there are but few of theſe ſort of men, but what will prey upon them with as much ferocity as a *wolf* would on a *lamb*.

N. B. When other timber beſides oak is to be valued and *regiſtered*, the bark column may be omitted: and the beſt and moſt facile way of taking and eſtimating the value of ſtanding timber, is according to the method preſcribed by Mr. Hume, in his Eſſay on Solids, at the end of his Surveying, in his Addenda to Mr. Wilſon's Practical Surveyor: to which I refer the *ſteward*.

WOOL-WEIGHT.

Wool is weighed by the *clove*, which is 7 pounds; and by the *ſtone*, which is 14 pounds; or by the *todd* of 28 pounds; and by the *wey* of 182 pounds; and a *pocket* or *ſarplar* is half a *ſack*, and a *ſack* weighs 364 pounds. There is alſo a *laſt* of Wool, which weighs 568 pounds. *Wool-drivers*, are thoſe that buy Wool of the owners, and carry it to the *clothiers*, or to ſome wool ſtaple town, in order to ſell it again.

Y.

YARD-LAND,

A certain quantity or meaſure of land. A name more particularly given to a certain quantity in an open field, which differs very much in value and quantity,

quantity, *two* manors hardly agreeing. In ſome manors it is from 16 to 20 acres, in others 40; but at Aſthorp in Northamptonſhire, a yard is worth a 100 *l. per ann.* A caracut of land, and alſo a virgate, were antiently no more than a certain extent of ground ſurrounded with ſuch bounds and limits; the ſame that is now called a yard land, and the quantity uncertain as now in yard lands.

YELT,

A country word for a young ſow.

YEW.

Our barren grounds and cold mountains might be very much improved and to great advantage, by planting them with this wood, for it is equal with *box*, and for all purpoſes where friction is required, there is hardly any to be compared with it. The Engliſh Yew, is produced of ſeeds waſhed from their mucilage, buried and dried in ſand, gathered when full ripe, and kept all Winter in the houſe, and in a cool place in the Summer, and ſown early the following Spring, after they have lain two Winters; but ſome bury them like *haws*. When they riſe, it is in chaps. At three years growth, they may be tranſplanted early in the Spring, or rather about Candlemas. They may be likewiſe raiſed of *layers* and *ſlips*, and ſucceed well in ſtandards, on almoſt any ſoil.

Z.

ZUCHE.

In old *records*, it ſignifies an old withered tree, or a dry ſtump, or ſtock of wood.

ADDENDA.

ADDENDA.

I would by no means adviſe the Steward to truſt the workmen to find *ſets* on planting *quick-mounds* or *fences*; for on a late incloſure in Northamptonſhire, a certain perſon undertook to ditch and quick a certain quantity or number of perches of work, who cut each *ſet* in the middle, and planted the lower part or true ſet, on the lower *rove* or *table*, and the falſe ones on the upper table, and ſo was paid for double the quantity of ſets he uſed, which was the leaſt and moſt inconſiderable part of the loſs, when compared with the diſappointment of a *foſs* producing but one ſingle row of plants.

When the workmen are cutting and plaſhing hedges, the Steward ſhould carefully inſpect them, and ſee that the chips, and other ſmall and dead wood, do not fall into the ditch or *foſs*, and be trodden in, as I have often obſerved, that what with his perquiſite faggot at night, and his foſs wood, near a third part of a hedge has often been claimed as a perquiſite by the workmen, which perhaps is in ſome meaſure the cauſe of that complaint, that the cutting and plaſhing of hedges turns to ſo little account to their owners, as hardly to pay the expence of doing the work.

It has been obſerved by an eminent farmer, that eighty ewes turn to as good account as an hundred and twenty ſharhogs to fold or pen them upon land; for that eighty ewes make as much urine

as

as the hundred and twenty ſharhogs, provided always, that the ewes and ſharhogs are of the ſame ſize and quality.

I here offer a thing to the conſideration of every good *Landlord* and *Steward*, whether it would not be proper on the letting of farms, to oblige the *Tenant* to *inſure* all the buildings upon the premiſes to their value, or pay for ſuch inſurance. This will prevent any ſurcharge upon the *Lord*.

I hope this propoſition of mine will need no apology, after I have ſaid, that I am not concerned in the *Sun-fire*, or any other ſuch *office*.

There may be a lawful ſmall perquiſite for a Steward, where he is not too much of the gentleman to accept of it, *viz.* to be joint aſſeſſor of the land-tax with the conſtable, and to partake with him of the three-pence *per* pound for collecting and paying it to the receiver: for it is unreaſonable that another perſon ſhould be a gainer, by paying in his *Lord*'s money, when he is as proper a perſon as any himſelf. He ſhould alſo take care that when a tenant leaves a farm, (when the tenant pays the land-tax) that he pays the tax up to the very time he leaves the farm.

It is the duty of a Steward to take care that his *Lord* be not over aſſeſſed in his land-tax, but only bear an equal proportion with all other lands within his manor, or where the *Lord* owns the whole, with other lands within his neighbourhood: therefore he ſhould make the ſtricteſt inquiry into all lands in the neighbourhood, and if he finds his

Lord

Lord overcharged, he ſhould make his complaint to the commiſſioners of the land-tax, and get him reduced to an equal ſhare with thoſe that pay leſs.

A Steward ſhould as much as in his power, encourage his *Lord* to plant as many trees as poſſible, and not to cut down but in caſe of abſolute neceſſity; for it may ſometimes happen, that the timber may ſave an eſtate from ſale or ruin.

STAM-WOOD,

Is the roots of trees grubbed up.

I humbly beg leave here to offer a thing to the conſideration of all *Noblemen* and *Gentlemen*, whether it would not be more proper and much better for ſuch *Noblemen* and *Gentlemen* to pay their ſervants their wages annually, and not to let them lie in arrears. It is certainly the beſt for the ſervant, for ſeveral reaſons I could offer, and not worſe for the *Lord:* but I do not chooſe to ſay any more on the ſubject, but leave it to the judgment of thoſe that act in a higher *ſphere*, whoſe intereſt it more immediately concerns.

The END *of the* FIRST VOLUME.

INDEX

TO THE

FIRST VOLUME.

A.

ALDER tree, and the method of propagating it Page 1
Arbor-vitæ, and the method of propagating it 3
Ash, and the method of propagating it ib.
Ashes, their qualities and virtues in improving land 5
Avenues, walks, &c. what dimensions they ought to be of 6

B.

Bank-fence, the method of making one, and its management ib.
Barley, its different sorts, and management 8
Barren springs, with their qualities 9
Beans, with their management, and different ways of planting them ib.
Beech, and the method of propagating it 12
Bigg, its nature and quality 13
Birch, the method of propagating it, and its proper soil ib.
Black oats, their proper soil, and method of propagating them 14
Black mould, its quality and natural produce ib.
Black-thorn, its propagation and quality 15
Boar, his shape, &c. 16
Boggy lands, the manner of draining them ib.

INDEX.

Breaſt plough Page 21
Brick making 22
Broom, its faults and perfections 24
Buck-wheat, the advantage of raiſing and propagating 25
Burning of land for corn ib.
Banking and burning of meadows and paſture land 28

C.

Calves, the manner of raiſing them, and making fine veal 31
Catch land, and why ſo called 36
Cedar, the manner of propagating it, and what ſoil ib.
Cert-money, and common-fine, and why paid 37
Chalk, its quality and uſe in improving land 38
Chalk-lands, their different manures and produce ib.
Champion land 39
Charcoal, the manner of burning it ib.
Cheſnut-tree, the manner of propagating it, and its uſe 45
Ciſterns for water, the manner of making them 47
Clay lands, dungs proper for them, and their natural produce 48
Claying of ground, and the advantage of claying ground 49
Clover, of the land proper for it, and the advantage of ſowing it 50
Coppice or copſe, the manner of planting them, and their management 52
Cord of wood, what it is 56
Copy-hold, its tenure, and why ſo called ib.
Corn-lands, the management of them 59
Court baron (vide leet) 60
Corn-ſetting engine deſcribed ib.
Cornel-tree, its propagation and uſe 66
Coſſi's, a worm in timber to deſtroy 67
Cow and ox-dung, how beſt prepared for land ib.
Crows, ravens, &c. to ſcare and fright from corn ib.
Cuſtomary tenants, what 68

D.

Dead-tops in trees, how occaſioned ib.
Derelict-lands, or dearloit-lands, what 69
Dores or black-clocks, inſects that deſtroy grain when firſt ſown, to drive away and kill ib.
Drains for land, to effect 70

Dreg

Dreg, what it is Page 74.
Drof, or dryf land, what it is ib.
Dunging of meadows, the beſt way ib.
Dung mears, the beſt way of making them 75

E.

Earth, and its different qualities 77
Elm, the manner of propagating it 79
Encloſures, *vide* incloſures
Ers, what it is 84
Eſſray, what it is ib.
Etch-crop, what it is 85

F.

Faldage, what it is ib.
Fallow-field, and the different tilths, what they are called ib.
Farding land, what it is 86
Farm, why ſo called ib.
Faugh-ground, what it is ib.
Felling of trees, the beſt method ib.
Fences, the beſt way of managing them to advantage 88
Fenny lands, the beſt way to manage them, and to the beſt advantage 96
Fearn, its uſe, and the beſt methods to deſtroy it 98
Filberd hedges, the beſt manner of raiſing them 99
Fir, the beſt manner to raiſe it 100
Fiſh-ponds, the beſt manner of making and preſerving them, and the beſt method uſed in managing fiſh 103
Fiſh garth, what it is 118
Fiſh ſhells, their uſe in manuring land ib.
Flax, the method of propagating it 119
Flooring, the beſt manner of making earth floors 122
Folding of ſheep, the beſt way of doing it to advantage 123
Foſſils, what they are 124
Fouldage, what it is ib.
Frampole fence, what it is, and where uſed ib.
Free-bench what it is, and where the cuſtom is in uſe ib.
Freehold, what it is 125
Fuel or fewel, the beſt manner of laying it up, founded upon experience 127
Furdingdeal, or fardingdeal of land, what it is 129

Furrow, its ſignification Page 129
Furz, the beſt manner of raiſing furz-hedges ib.

G.

Garth, what it is 130
Glue, a particular ſort far exceeding the common 131
Goats, the beſt way to manage them, and the advantage of keeping them on ſome ſorts of land, and a table of their increaſe ib.
Gouty-land, what it is 134
Granary, their uſe, and the beſt way to make them 135
Grange, what it is 137

H.

Hariot, harriot, or herriot, what it is 138
Haſel, or haſle, the beſt way to propagate it ib.
Haws, the beſt way to manage them for propagation 139
Hayward, what a hayward is, and his duty 140
Hazely or brick earth, what it is ib.
Heath, what a heath is 141
Hedges, the beſt way to make dead hedges 142
Hemp, the beſt manner of propagating it 144
Highways, the beſt way of governing and repairing them 145
Hog, what, and the different ways of fatning them 149
Hog-dung, its uſe in improving land 152
Holly, the beſt method to propagate it, and its uſe 153
Holm, what it is 154
Holt, what it is ib.
Homeſtall, what it is ib.
Hook-land, or ope-land, what it is 155
Hops, the beſt way to propagate them ib.
Horn-beam, the beſt way to propagate it, and its uſe 162
Horn-geld, what it is ib.
Horſe-beans, where the largeſt are propagated 163
Horſe-dung, how to order it for different ſoils ib.
Hovels, their uſe, and the beſt way to build them ib.
Hover-ground, what it is 164
Houſe-bote, what it is, and ſome remarks upon it ib.
Human ordure, the beſt way to prepare it for land 165
Hurdles, what they are, and their uſe 166

INDEX.

I.

Incloſures, or encloſures, the advantage of incloſures, and ſome rules for the choice of lands on incloſing Page 166

To which is added common in groſs, common appendant, common appurtenant, and common by neighbourhood, with their ſeveral ſignifications, and in what manner the lord has a right in them 175

Interſoiling, what it is 179

Inventory, what it is ib.

Jument, what it is 180

Junames, what it is ib.

Ivy, injurious to thoſe trees it twines about ib.

K.

Kelp, what it is, and its virtue as manure ib.

Keys, what they are 181

Kine, their different ſorts where produced, and a table of their increaſe ib.

Knoll, what it is 184

L.

Lear-ground, what it is ib.

Land, its different ſorts and qualities, and natural produce 185

Land-cheap, what it is 186

Land-floods, to be drained off ib.

Larch, or larinch-tree, its propagation and durableneſs ib.

Lays, what they are 187

Leet-court, what it is, with remarks ib.

Lentils, their propagation and uſe 189

Letting of farms, and remarks thereon 190

Level, and levels, what they are, and their uſe, for the inverted level (*vide* fiſh-ponds) 200

Lignum vitæ, vide arbor thya ib.

Lime, the manner of burning it, and its uſe as manure 201

Lime-ſtone, what it is ib.

Lime, or linden-tree, the manner of propagating it 202

Ling, what it is 203

Liquorice, the beſt manner of propagating it 204

Load, its various ſignifications 205

Load of hay, what quantity is accounted ſo ib.

Loam, what it is ib.

INDEX.

LORD, how the word is applied by the author, and his addreſs to them in the following ſections P. 206
Section I. Of the qualifications neceſſary in a ſteward. Of an eminent advertiſement againſt deſtroying the game ib.
Sect. II. A poſtillion advanced to the office of a ſteward 208
Sect. III. Mr. Laurence's account of a ſteward 211
Sect. IV. Mr. Laurence's opinion of a country attorney employed as a ſteward 213
Sect. V. What are too often looked upon as proper qualifications for a ſteward 214
Sect. VI. The lords of manors not to be too ſevere and ſtrict in taking their harriots, and the miſchiefs that often enſue on ſuch ſtrictneſs 216
Sect. VII. Of the perquiſites of ſtewards. The author's reaſons for the ſteward's taking poundage for all wood ſold off his lord's eſtate 218
Sect. VIII. Reaſons for the lord inſiſting on his ſteward's being appointed a ſurveyor of the highways ib.
Sect. IX. The method taken by a certain ſteward in making up and exhibiting his accounts 219
Sect. X. The author's excuſe for his freedom 221
Lucern, the beſt method of propagating it, and its qualities 222
Lupines, the method of propagating them, and the great improvement they make on the land they are ſown upon 223

M.

Madder, the beſt manner of propagating it, and the great return it makes to the planter ib.
Malt, the advantage of making it in Noblemen and Gentlemen's families 224
Malt-duſt, its uſes 227
Malt-mill, the beſt ſort ib.
Manor, what a manor is 228
Maple, the method of propagating and treating it 230
Marle, the different ſorts, and how the quality of it may be known ib.
Marled lands, of the great quantities laid on in Staffordſhire 232
Marle-pit pump, its peculiar make and uſe 233
Marſh-land, the beſt manner of treating it 235

Maſlin,

Maſlin, what it is Page 236
Maſt, what it is, and by what trees produced ib.
Meadow, or meadow ground, and the method of improving them ib.
Mear, what it is 239
Mills, water-mills very hurtful to adjoining lands, and a ſurcharge upon the landlord, remedies for it ib.
Moles, the waſte they commit, Mr. Blythe's manner of deſtroying them 240
Mooriſh land, *vide* gouty land
Mud, in what manner it improves land 241

N.

Neat-herd, his employ 242
Nurſery, the beſt way of managing one ib.
Nuiſances, to ponds and fiſh 249

O.

Oak, the different ſpecies, and the beſt way of propagating it 250
Oat-meal, the manner of making it 257
Oats, the beſt manner of propagating them, and of their different ſpecies 258
Oker, where it may be found, its different ſorts, and how prepared for uſe 259
Orchards, the beſt way of planting and managing one 260
Overflowing of land when the water lies low, what machine moſt proper 262
Oxen, the beſt method of ſtall-feeding them ib.
Ozier, its management, and the advantage of planting it 264

P.

Pannage, or pawnage, what it is ib.
Pantiles, their uſe ib.
Park and warren, what they are, and of haviors 265
Paſture land, its value, different ſorts and qualities ib.
Peaſe, the different ſorts, and management 266
Perſian wheel, who firſt projected it, and its uſes 267
Pigeons, their different names, ſpecies and management 268
Pine, the beſt manner of raiſing and treating it 271
Plough, a deſcription of the ſeveral ſorts, and where uſed 272

Ploughing, the different ſeaſons for it, and a new plough by the author demonſtrated Page 277
Pocket of wood, what it is 283
Popiar, the different ſorts, and the beſt way to propagate them, as alſo the tulip-tree and abele ib.
Pot-aſhes, their uſe, and manner of making them 287
Pound, or pinfold, what is accounted ſo, and the conditions 290
Predial tithes ib.
Pruning of foreſt trees 291
Pyracantha, the manner of raiſing it, and its uſes 294

Q.

Quetch, its divers ſignifications ib.
Quick-beam, the beſt method of raiſing and treating it ib.
Quincunx, what it is 295

R.

Rags, what ſorts of land they are proper to be laid on ib.
Rape and cole-ſeed, how propagated, and its advantages 296
Ray-graſs, how propagated, and its advantages 297
Red oats, where propagated 298
Reeks, hay-reeks, to prevent their firing ib.
Rod, what a rod is accounted to be in meaſure 299
Roſland, what it is ib.
Rot in ſheep, the ſeaſons of it, means offered to prevent it 300
Rother-beaſts, what are called ſo, and where 301
Roughings, what are called ſo 302
Runt, what is ſo called ib.
Ruſhes, flags, &c. to exanimate ib.
Rye, what land is proper for it, and the beſt method of keeping the flour ib.

S.

Saint-foin, its different names, manner of propagation, and the advantages ariſing from it 303
Sallow, how propagated 305
Sand, the different ſorts and qualities, its effects in vegetation ib.
Sea-weeds 307
Seam, its quantity 308
Sear-leaves ib.
Seaſoning of timber, the ſeveral ways of doing it for all purpoſes ib.

INDEX.

Seed for corn, ſeveral ways of preparing it Page 311
Seminary, what it ſignifies in huſbandry 313
Shack, what is meant by it, and where uſed ib.
Sharping-corn, what it is 314
Shaw, what it is ib.
Sheep-dung, the ſeveral methods of applying it to advantage ib.
Sheep-pens, and the increaſe of ſheep, a table of their increaſe 315
Shells, fiſh-ſhells, their quality, and the method of preparing them for manuring and improving land 320
Shingle, what it is, and where moſt in uſe 321
Shorling and morling, to what the words are applied ib.
Sike, what is meant by it ib.
Skepe, what it is ib.
Skid, what is meant by it 322
Skreen, what it is, and its uſes ib.
Slab, what it is ib.
Slate, the different ſorts, and methods to prove their qualities ib.
Sluice, the beſt timber for that purpoſe, and the beſt manner of erecting them 324
Smut in corn, reaſons given for it, Dr. Sharrock's opinion of it 325
Snail-cod, or ſnag-gret, what is meant by the words 326
Sope-aſhes, their effect on coarſe land 327
Soil, its different qualities, and how to judge of it by its appearance ib.
Soil for timber, what ſoil is moſt proper for the different ſpecies 329
Soot, its improving quality and virtues in huſbandry 331
Sour-lands, the beſt way to treat them 332
Spade, the different ſorts for different works and uſes 333
Staddles, what is meant by them 334
STEWARD, what the author means by the word, and his apology of addreſs to them in the following ſections 335
Sect. I. That he undertakes no more buſineſs than what he can perform to his Lord's advantage, and that collecting the rents is only a ſmall part of his duty 336
Sect. II. What methods the Steward is to take on firſt entering on his office 337

Sect.

Sect. III. *How* he is to proceed on firſt entering on his office, with regard to his Lord's woods Page 339
Sect. IV. Of his qualifications in mechanics, where it was highly neceſſary, and the defect ſupplied 340
Sect. V. The Steward to diſpenſe the beſt work among the labourers, and not let one be an undertaker, the bad conſequences attending it 341
Sect. VI. Some things offered on erecting buildings on the Lord's waſte 344
Sect. VII. The Steward's vigilance in the diſcovery of mines on his Lord's eſtates; the advantage of it 345
Sect. VIII. The Steward to aſſert the privileges of his Lord, inſtances of it 346
Sect. IX. Of the Steward's qualifications and ſkill in huſbandry, the advantages of it 348
Sect. X. *How* the Steward ſhould proceed with poachers, an advertiſement againſt it 351
Sect. XI. Of the Steward's inſpecting the park-keeper, and rules for the government of a park, with the form of a deer-table 353
Sect. XII. The Steward to inſpect his Lord's woods, and the woodman, the advantages ariſing therefrom, and the bad conſequence of not doing it 357
Sect. XIII. Some reaſons offered with regard to the letting of farms, and improvements made by building, in trading parts of the kingdom 359
Sect. XIV. The Steward to inſpect the mole-catcher, the bad conſequence of letting moles over-run the land 362
Sect. XV. Some reflections on raiſing the rents of lands, methods to prevent a combination of the tenants, *&c.* 364
Sect. XVI. The Steward to prevent all unlawful ſettlements in the ſeveral pariſhes belonging to his Lord, and to prevent the tenants ſettling their ſervants in ſuch pariſhes where there is not a manufacture carried on to employ their offſpring, the bad conſequences of it to the poor themſelves, and to the Lord, and the Steward to act as a mediator in diſputes between one tenant and another 368
Sect. XVII. The Steward to oblige the tenants to cover their ſeveral edifices with ſlate or tile, and on letting

ing his Lord's eſtates, to inſert a covenant that they ſhall not commit waſte Page 371
Sect. XVIII. On open field eſtates, not to parcel out the land to freeholders, and ſeveral other remarks 372
Sect. XIX. Remarks on the Lord's preſenting to a church-living, ſchool, &c. 375
Sect. XX. Of the Steward's behaviour as a ſurveyor of the highways, and of his attending the pariſh veſtry. Of the late hardſhips of the poor 376
Sect. XXI. The Steward to obſerve what method every tenant takes to pay his rent, with ſome other uſeful remarks 379
Sect. XXII. Farmers generally illiterate, the Steward to perſuade them to put their ſons to ſchool 382
Sect. XXIII. Where the Lord is the impropriator, how the Steward ſhould diſpoſe of the great tythes, with ſome remarks on ſacrilege 384
Sect. XXIV. All natural manures the manor produces to be diſpoſed of to the tenants. The Steward not to make perquiſites of them, his being reſtrained to the poundage of timber, &c. 385
Sect. XXV. Of the Steward's vigilancy when his Lord is inclinable to purchaſe an eſtate, &c. and alſo of ſtocking land with rabbets, &c. 386
Sect. XXVI. How the Steward is to proceed with regard to repairs of houſes, mills, &c. 389
Sect. XXVII. How the Steward ſhould proceed on a tenant's leaving a farm 391
Sect. XXVIII. The neceſſity of the Steward's meaſuring the artificer's work. The progreſs made by a certain pair of lawyers, allowances made to workmen 393
Sect. XXIX. The Steward to ſee that the tenants ſcour up and cleanſe the ditches, and not to lay compoſts in the ſtreets, to preſent ſuch treſpaſſers at the Lord's court, with ſeveral other remarkables 395
Sect. XXX. The Steward not to ſuffer any of his Lord's tenants to let any of their farms to an under-tenant, the bad conſequences of it, how to treat them, and not to let incloſed land to freeholders 397

Sect.

Sect. XXXI. Of the Lord, where his parish is small, and no manufacture carried on in it to put poor children apprentice out of it, the better to get their bread, cautions for a right placing them . Page 399
Sect. XXXII. Of divers compound articles, too tedious to mention ib.
Stews, how to make, and to dispose of them to advantage 402
Stirk, or Sturk, what is meant by it 404
Stone-fences, how made ib.
Stony-lands, how to treat them 405
Stover, what it is 406
Straw, how converted into good food for horses, &c. ib.
Stubble, what it is ib.
Stud, or stode, what is meant by it ib.
Sty, what it is, and the manner of building a frank, &c. 407
Suit of court, or suit service, what is meant by it ib.
Suit-silver, what is meant by it 408
Sull, what it is ib.
Swang, what it is ib.
Sward or green-sweard, what it means in husbandry ib.
Swarth, or swath, what it means ib.
Sycamore, how propagated ib.

T.

Tares, how propagated, and their use 409
Teenage, what it is 410
Tenement, the law sense of it ib.
Tenementary land, the law sense of it ib.
TENANT, Sect. I. The different sorts 411
Sect. II. The tenant not to plough more than he can manure, the consequence of it 413
Sect. III. Keeping too great a number of horses very injurious to farmers 414
Sect. IV. Horses spoil the land on which they feed 415
Sect. V. Giving extensive pieces of greensweard to cattle at once, is not good husbandry, but to give it as turnips are given to sheep, is profitable 416
Sect. VI. The method taken by a farmer to prevent his hedge-stakes being stolen, the sequel of it ib.